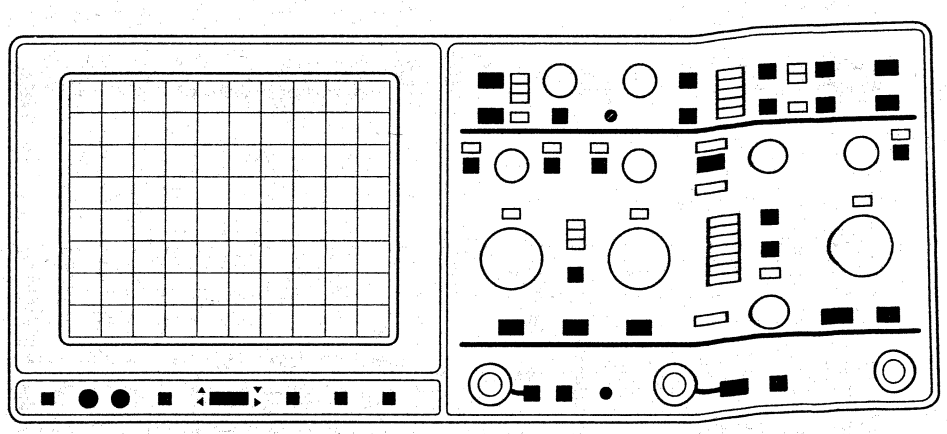
HAMEG®
Instruments

MANUAL



AC Board
Diagram 2
Top and bottom side 3

AT Board
Diagram 4
Top and bottom side 5

RA Board
Diagram 6
Top and bottom side 7

RB Board
Diagram 8
Top and bottom side 9

TG Board
Diagram 10-11
Top and bottom side 12

Digital Board
Diagram 13-18
Top side 19
Bottom side 20

FC Board
Diagram 21-22
Top side 23
Bottom side 24

XY Board
Diagram 25-26
Top side 27
Bottom side 28

ZF Board
Diagram 29-30
Top side 31
Bottom side 32

CRT Board
Diagram 33
Top and bottom side 34

PS Board
Diagram 35
Top side 36
Bottom side 37

PSP and PSS Board
Top side 38

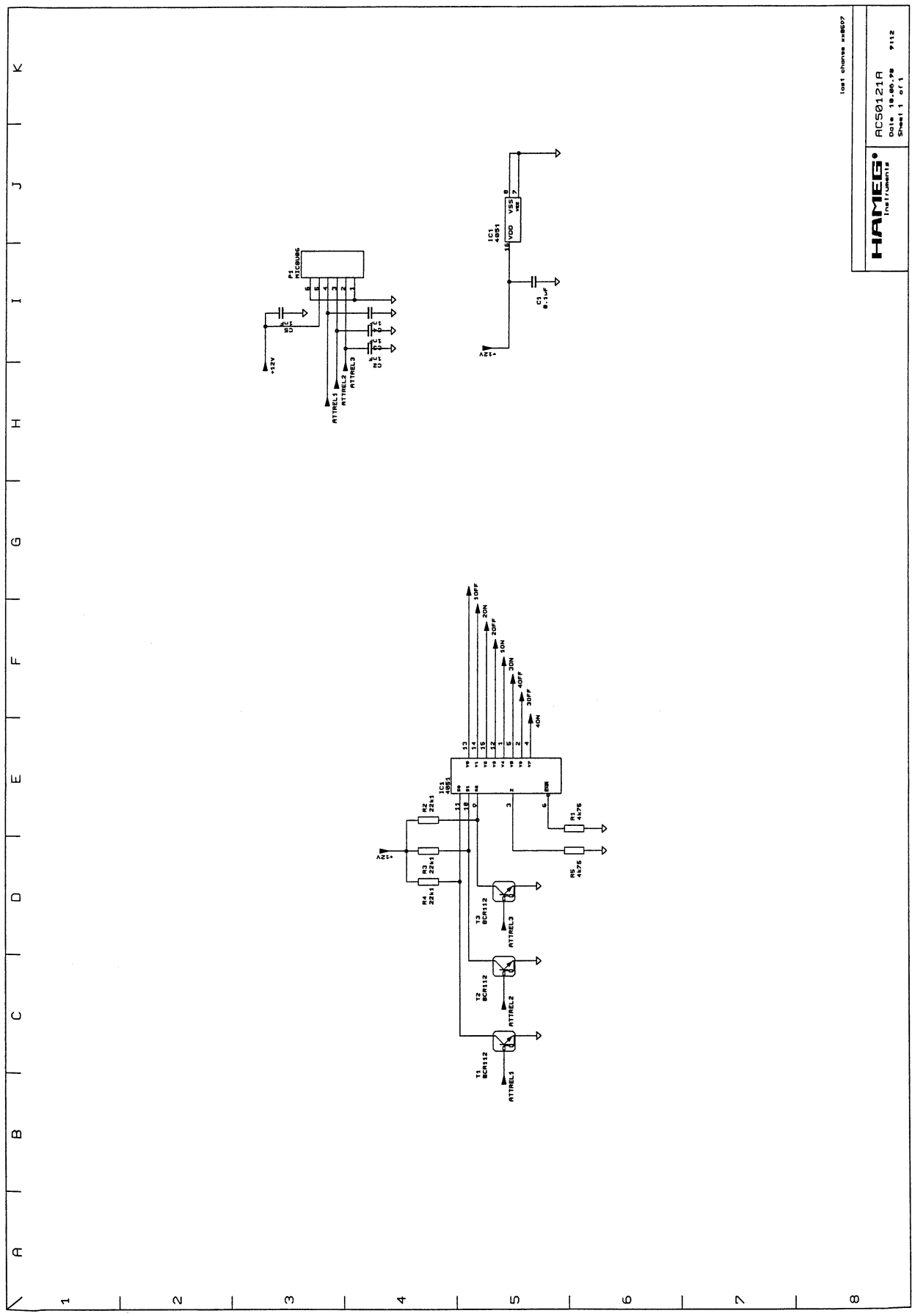
PA Board
Diagram 39
Top and bottom side 40

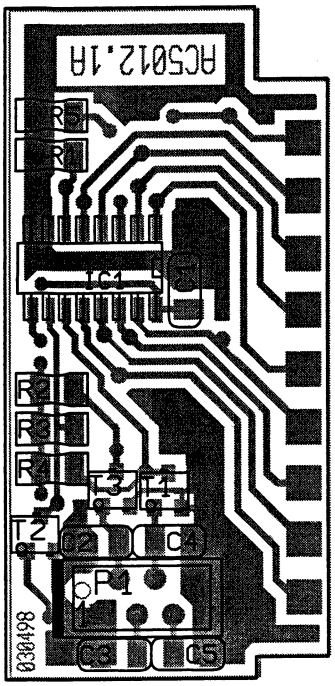
Service Manual
Circuit Diagrams

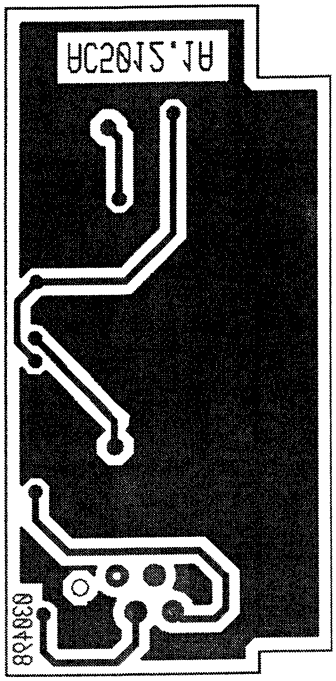
HM5012/14

St. 030998. fell/goRR

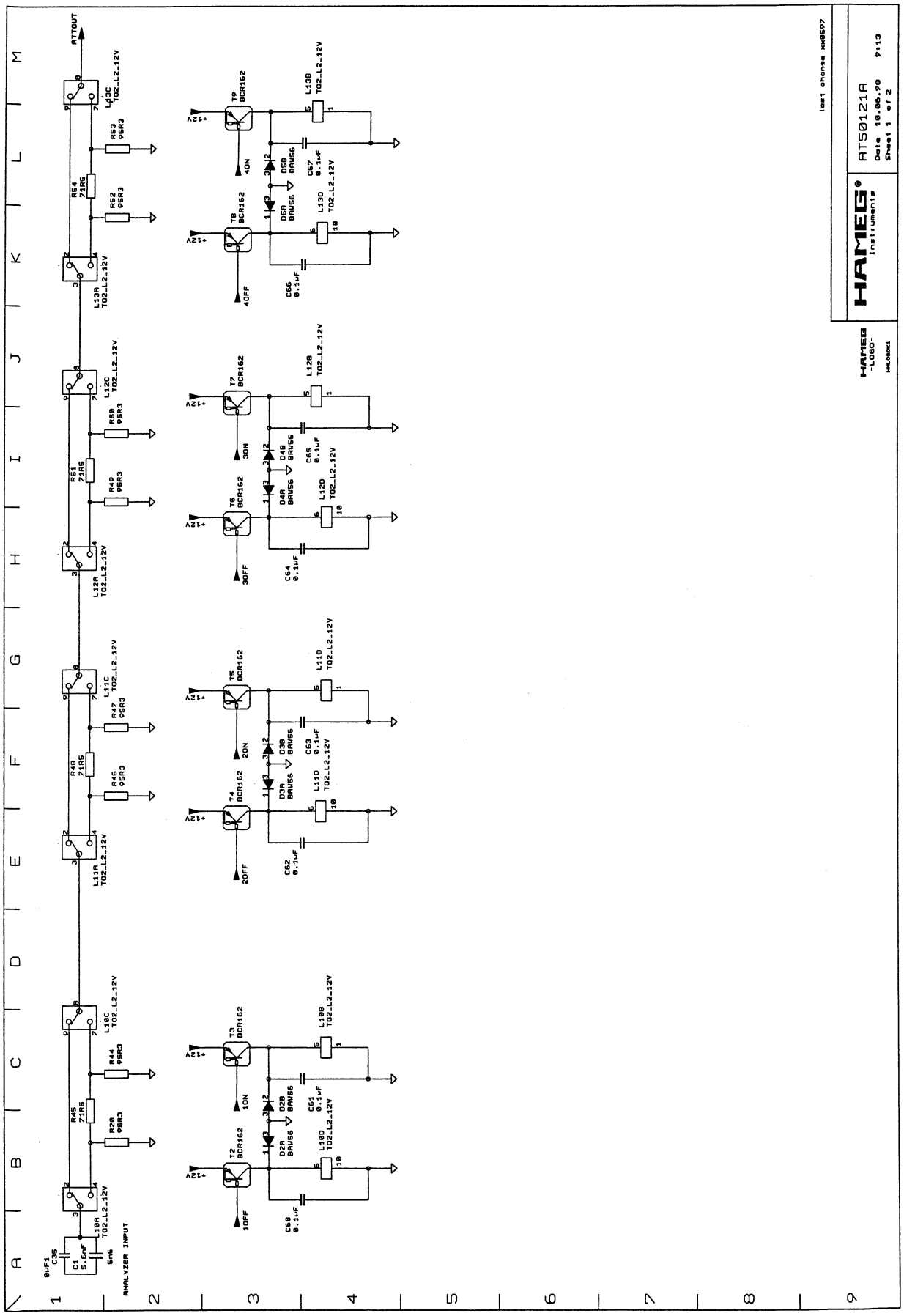
AC Board - Diagram

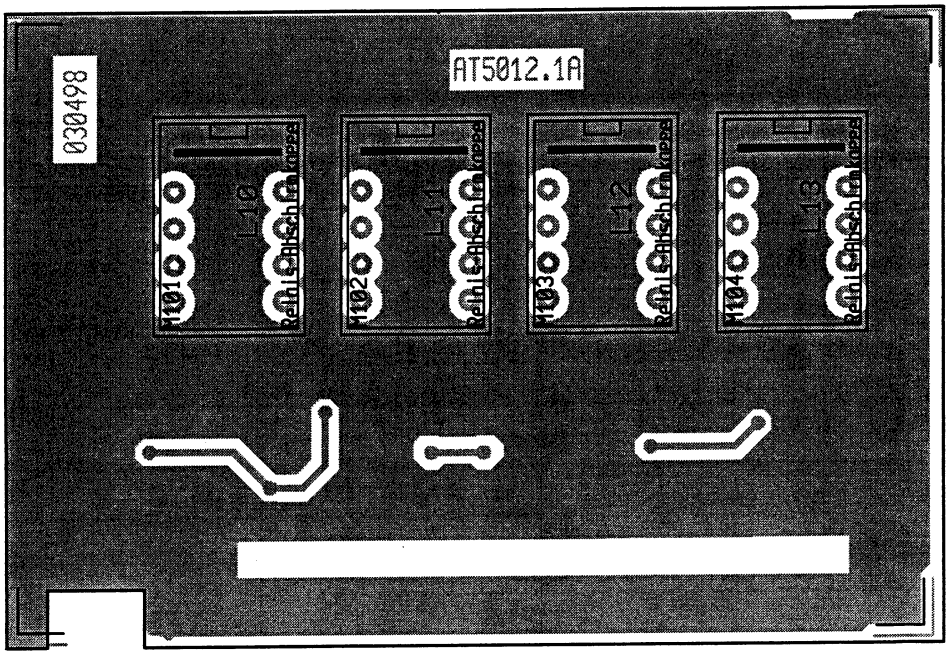


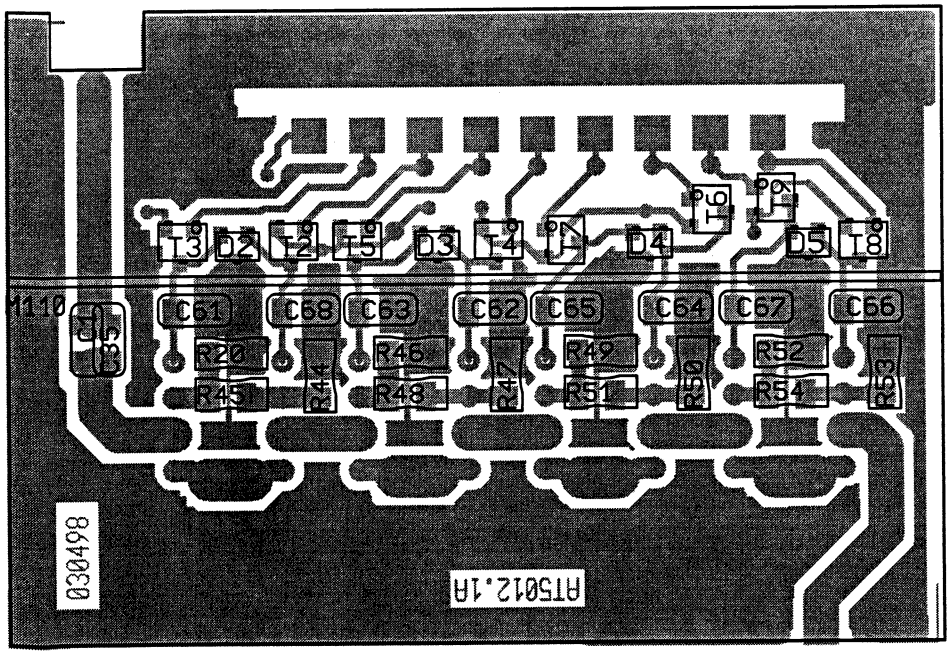

AC5012.1A
R5
R4
IC1
R1
R3
R2
T3
T4
T2
C2
C4
P1
C3
C5
030498


AC5012.1A
030498

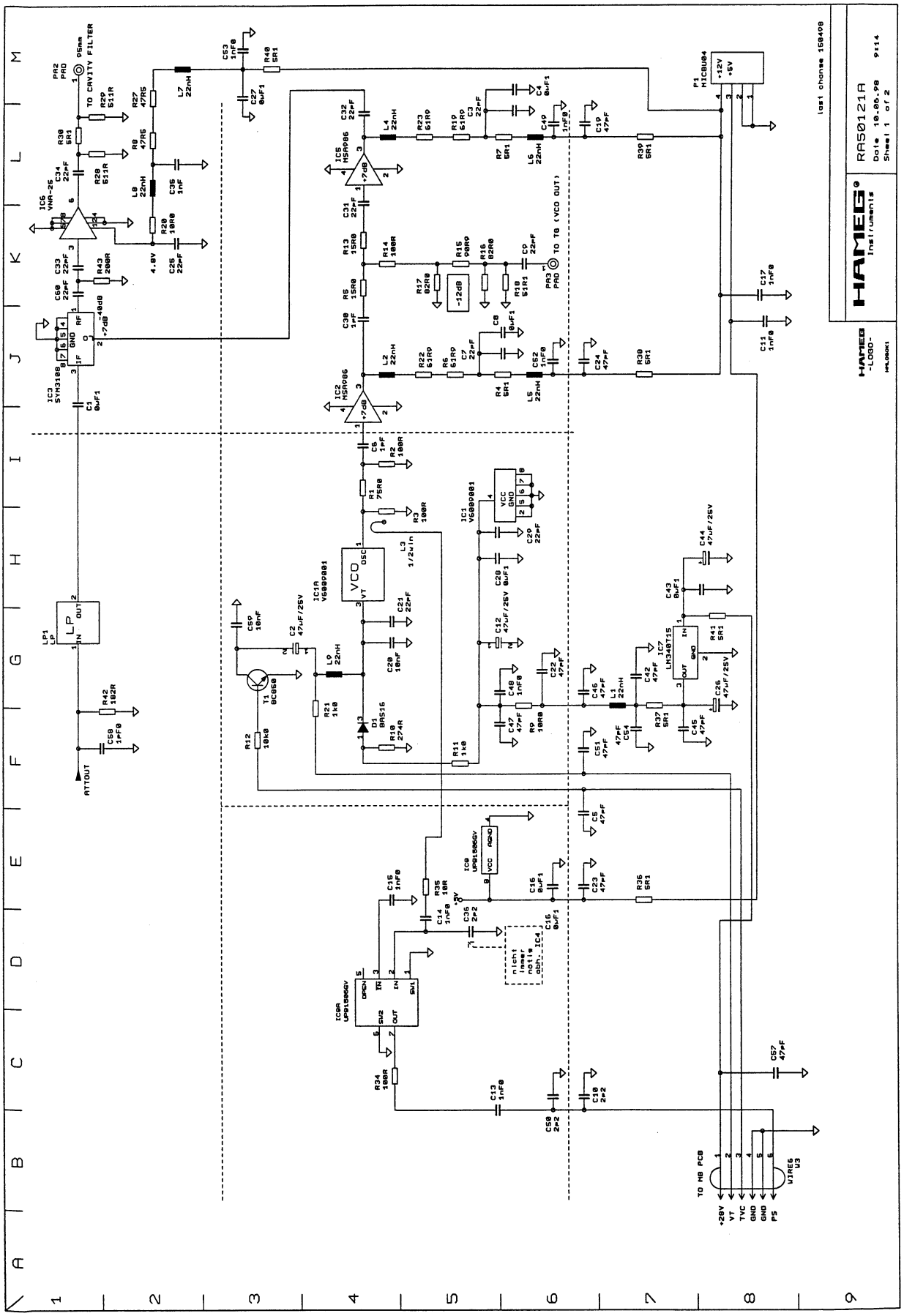
AT Board - Diagram

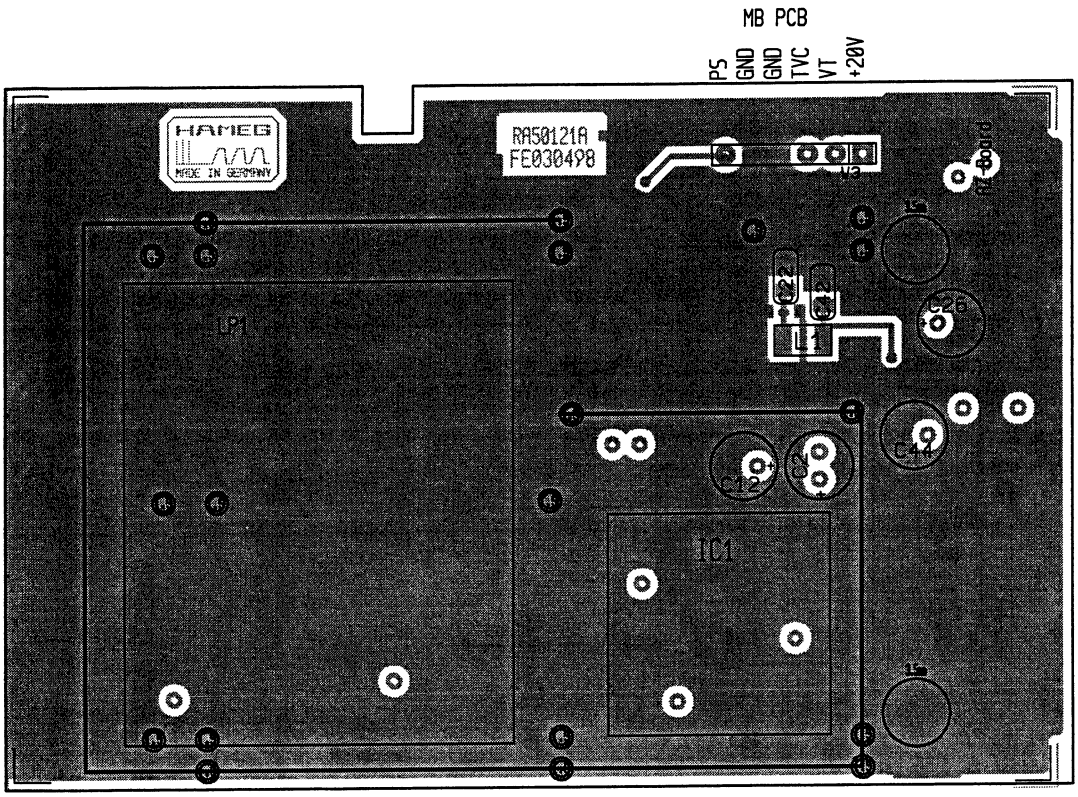


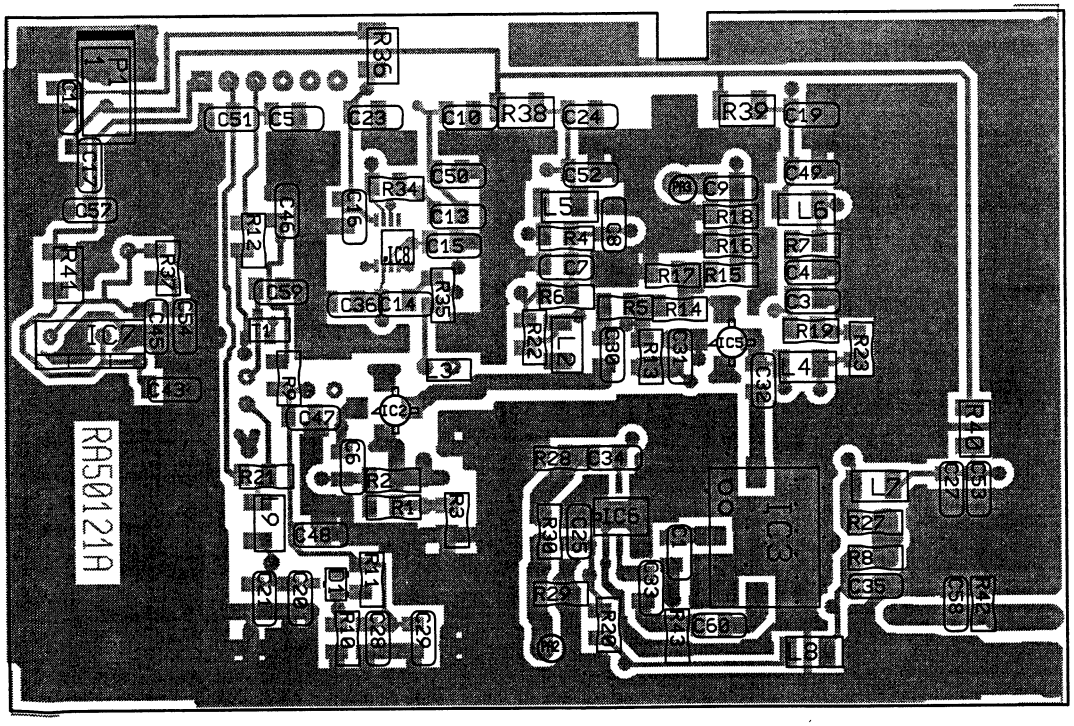

AT5012.1A
030498
L10
L11
L12
L13
R101
R102
R103
R104


T3
D2
T2
T5
D3
T4
D4
T6
T7
D5
T8
C61
C68
C63
C62
C65
C64
C67
C66
R20
R46
R49
R52
R45
R43
R51
R54
030498
AT5012.1A

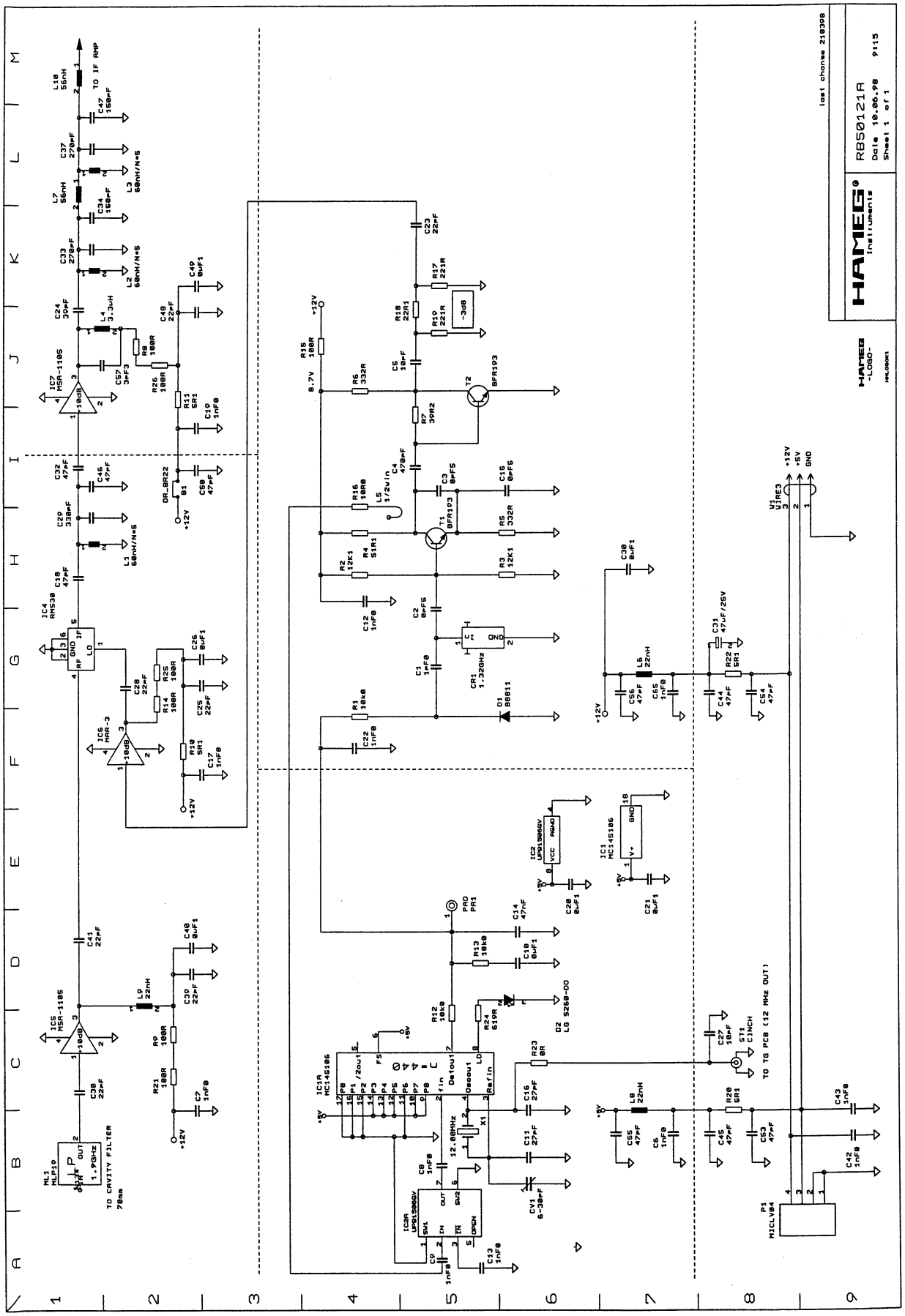
RA Board - Diagram



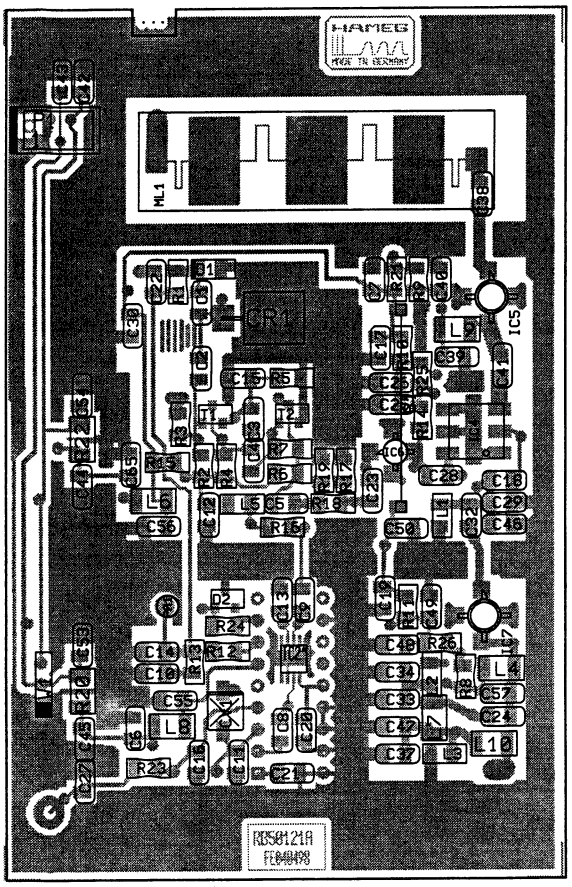

MB PCB
PS
GND
GND
TVC
VT
+20V
HAMEG
MADE IN GERMANY
RA50121A
FE030498
LP1
IC1
C12
C14
C22
C24
C26
L1
V2
15

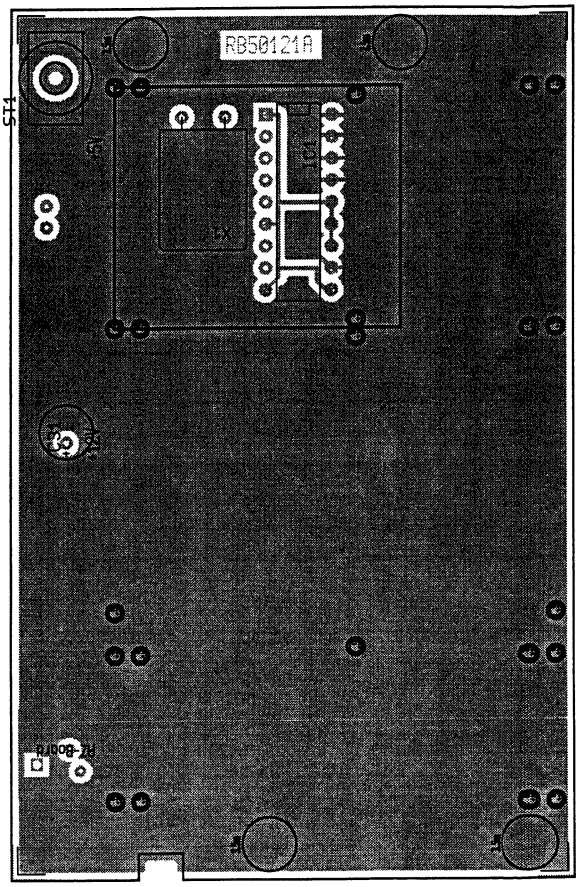

RA50121A
R86
C51
C5
C23
C10
R38
C24
R39
C19
C50
C52
C49
R34
C9
C16
C13
L5
R18
L6
C15
R4
C6
R16
R7
R41
C7
R17
R15
C4
C59
C36
C14
R35
R6
R5
R14
C3
C45
C54
C57
L2
C30
C31
R19
R23
C43
L4
C47
IC2
IC5
R10
C53
R28
C34
C27
C46
R21
R2
R3
C48
C25
C6
L7
R27
R8
C35
C21
C20
C28
C29
C33
C60
R42
C58
L8

RB Board - Diagram

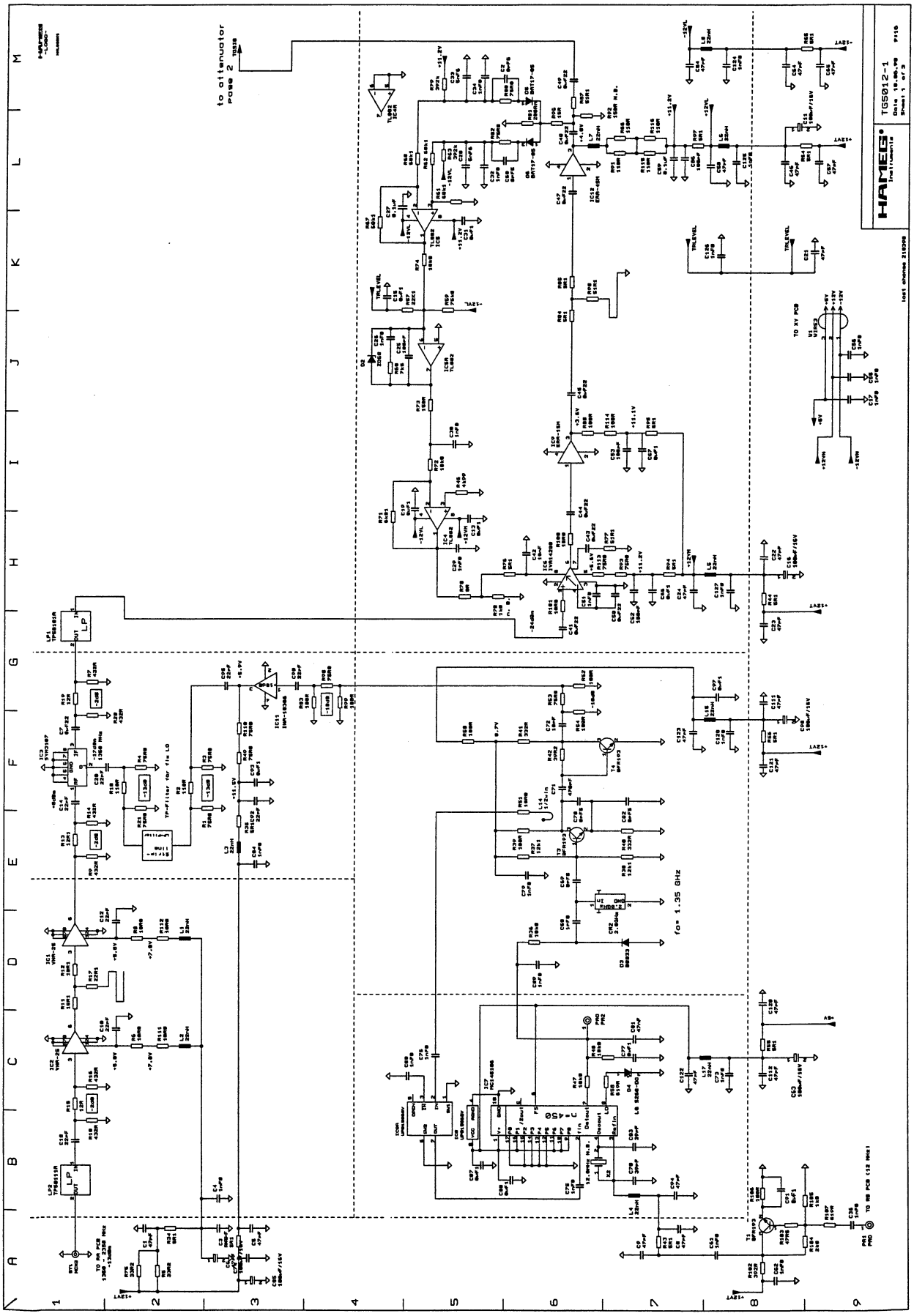


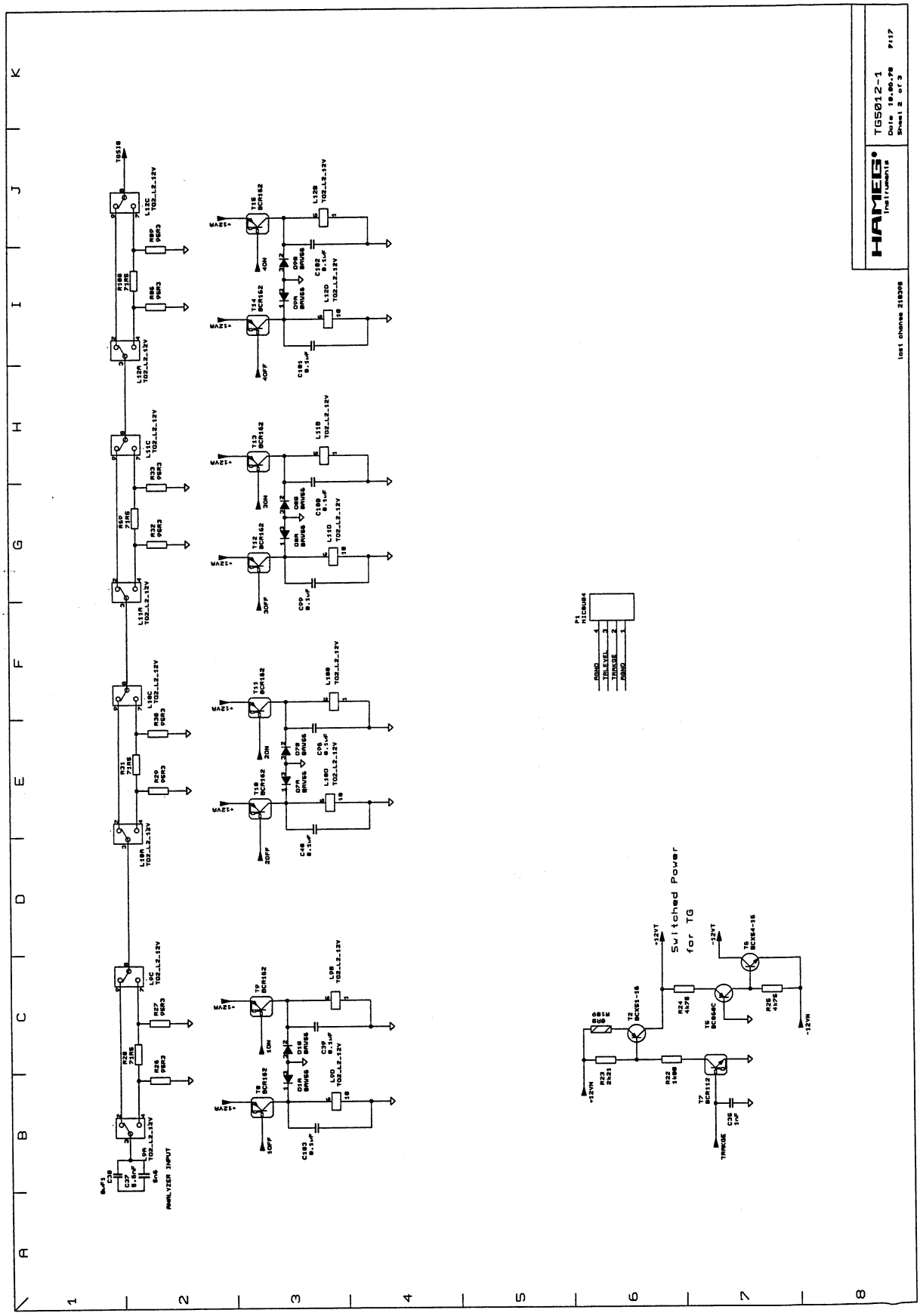
Subject to change without notice


HAMEG
MADE IN GERMANY
ML1
CR1
IC5
IC6
RB50121A
FE04H98

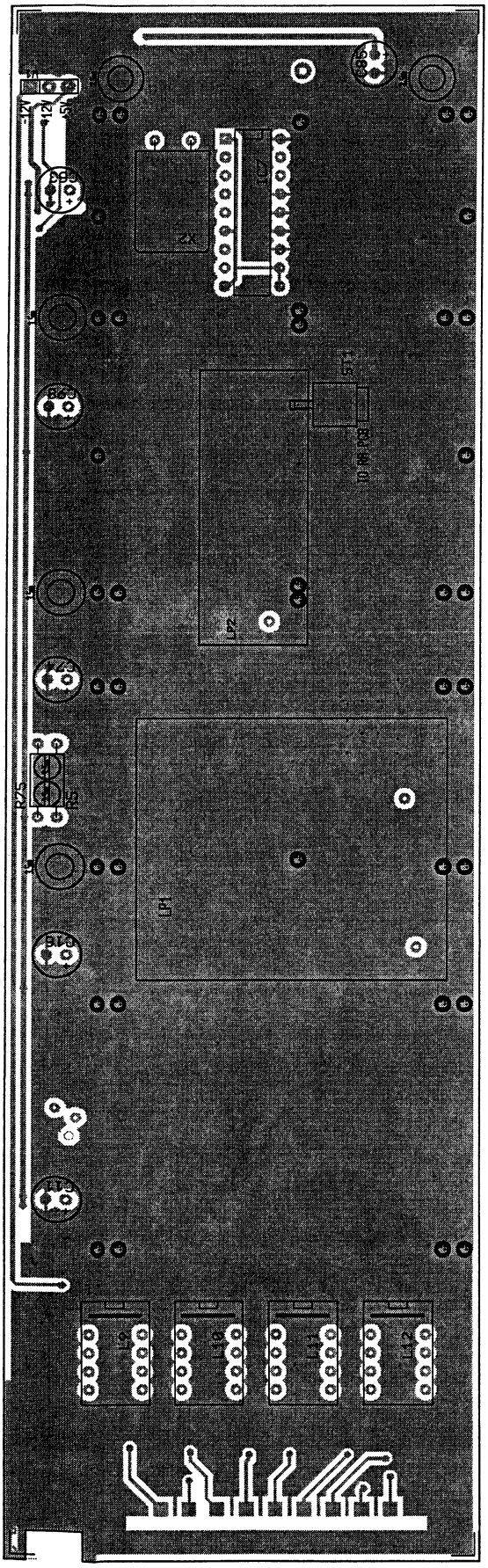

RB50121A
ST4
IC1
RJ808

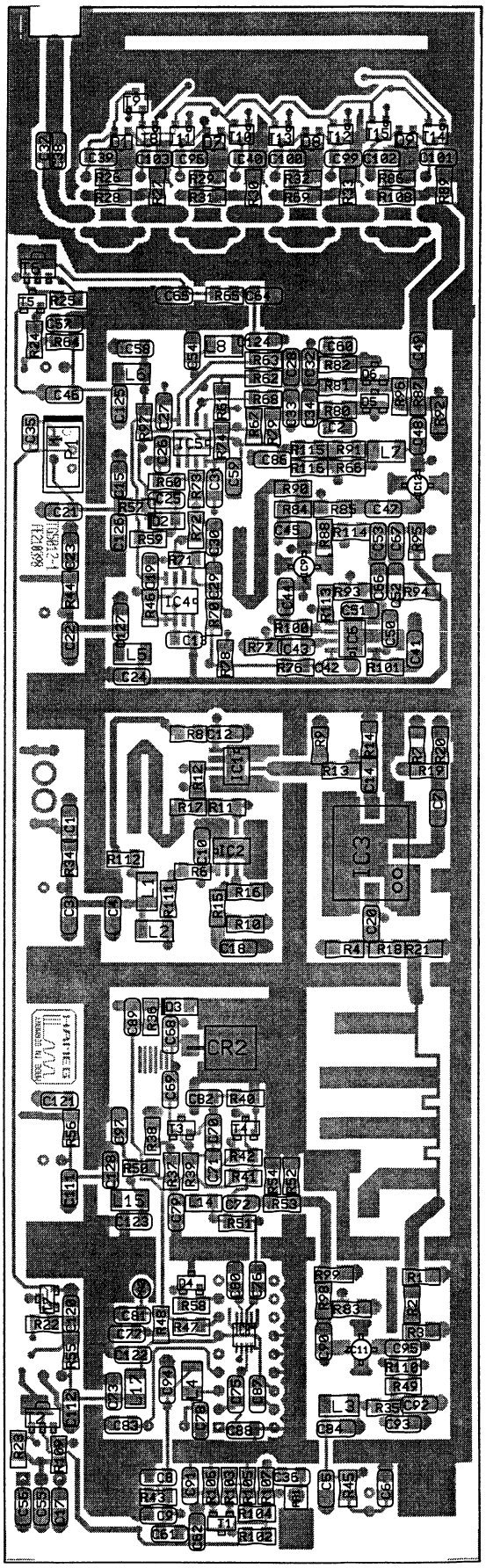
TG Board - Diagram

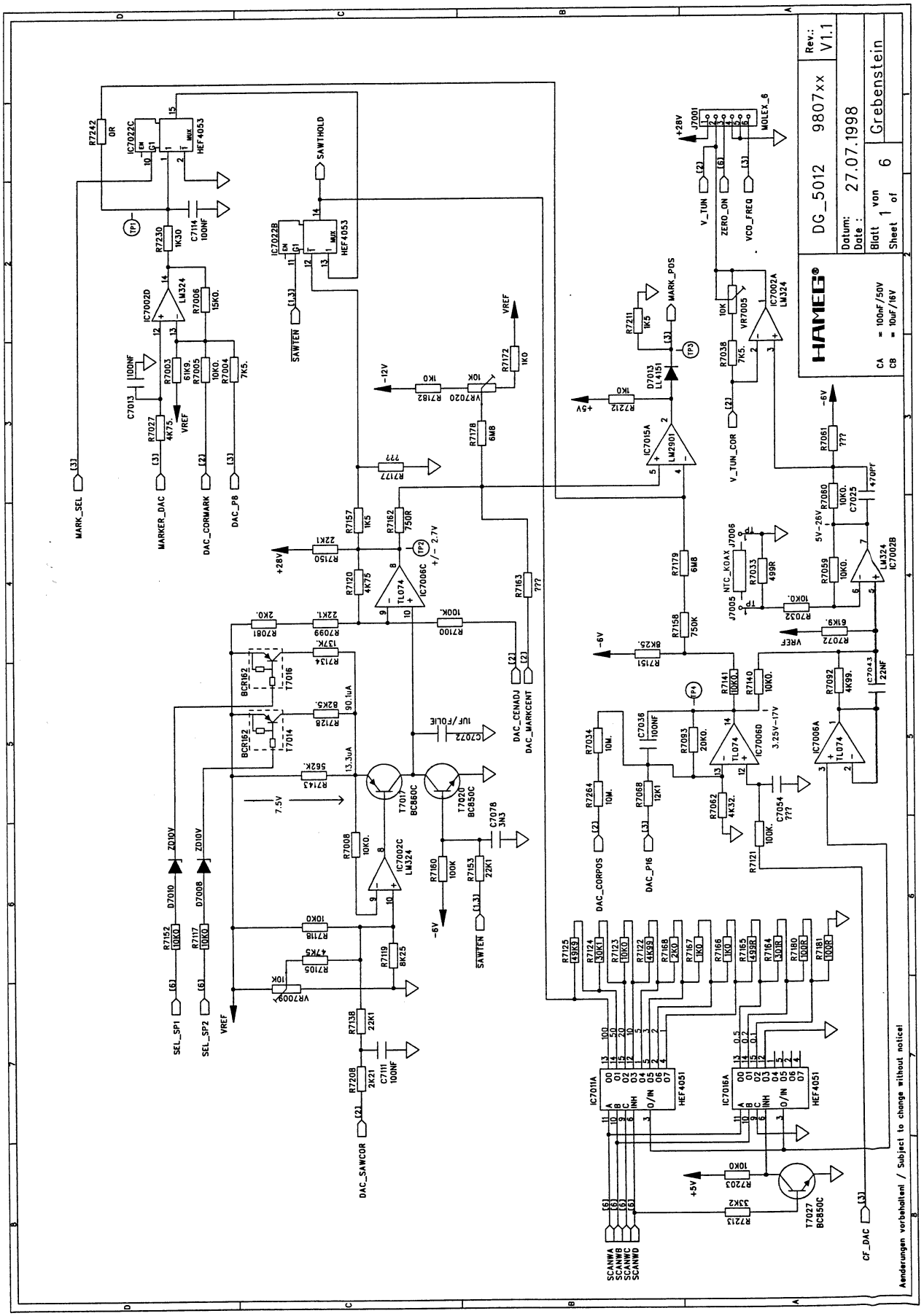



HAMEG
TG5012-1
Switched Power
for TG
ANALYZER INPUT
TRIGGER

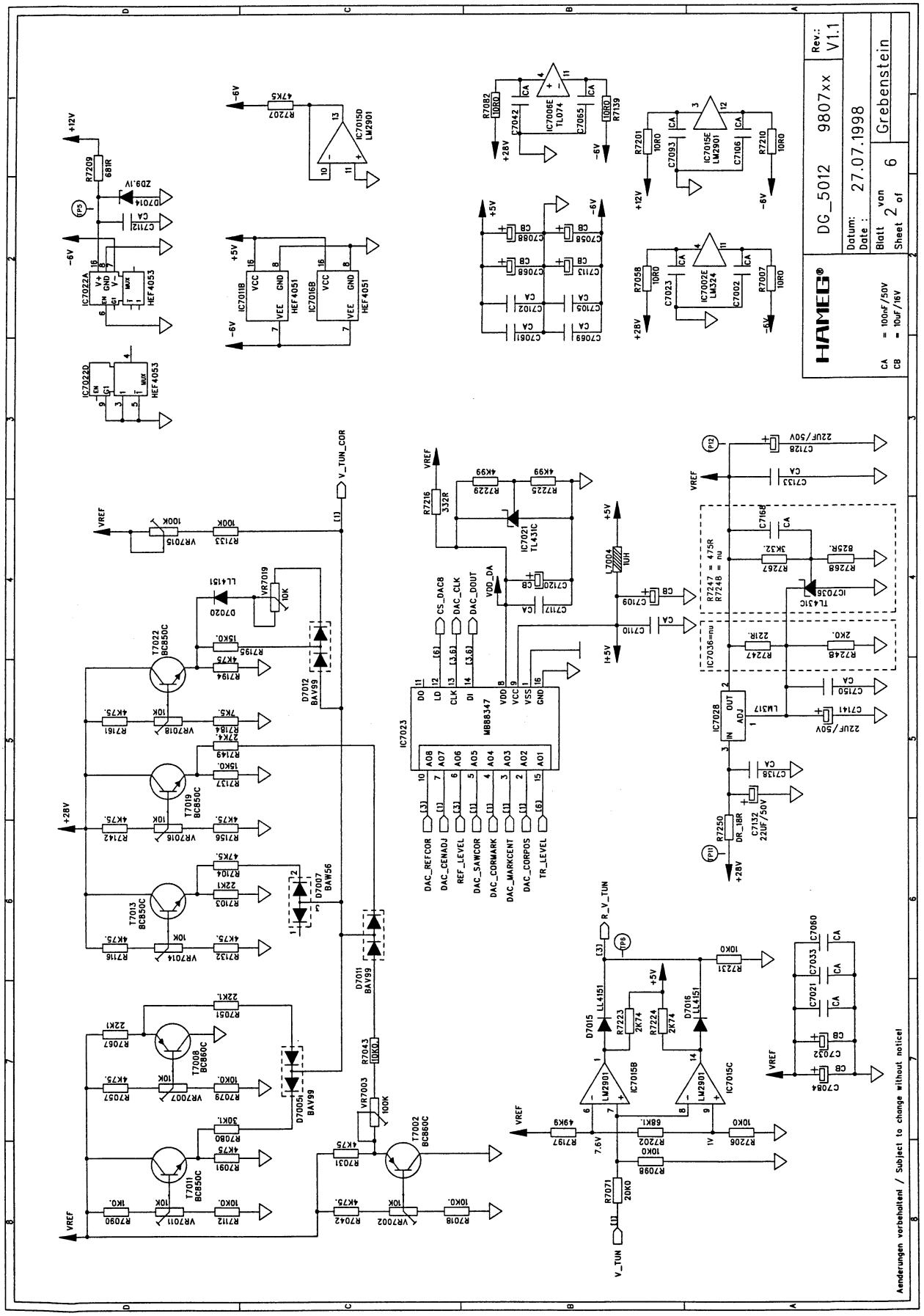
TG Board - Top and bottom side

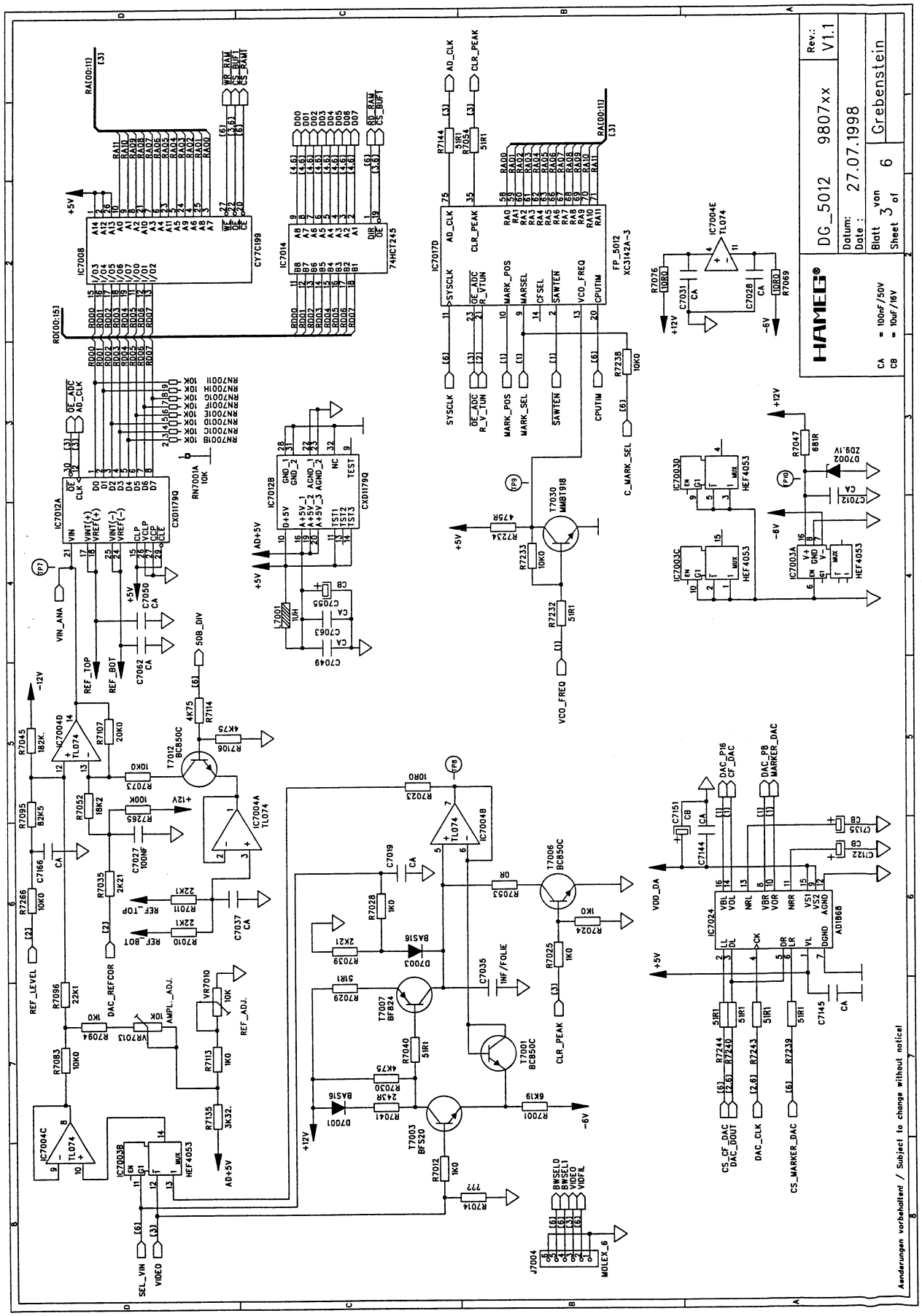




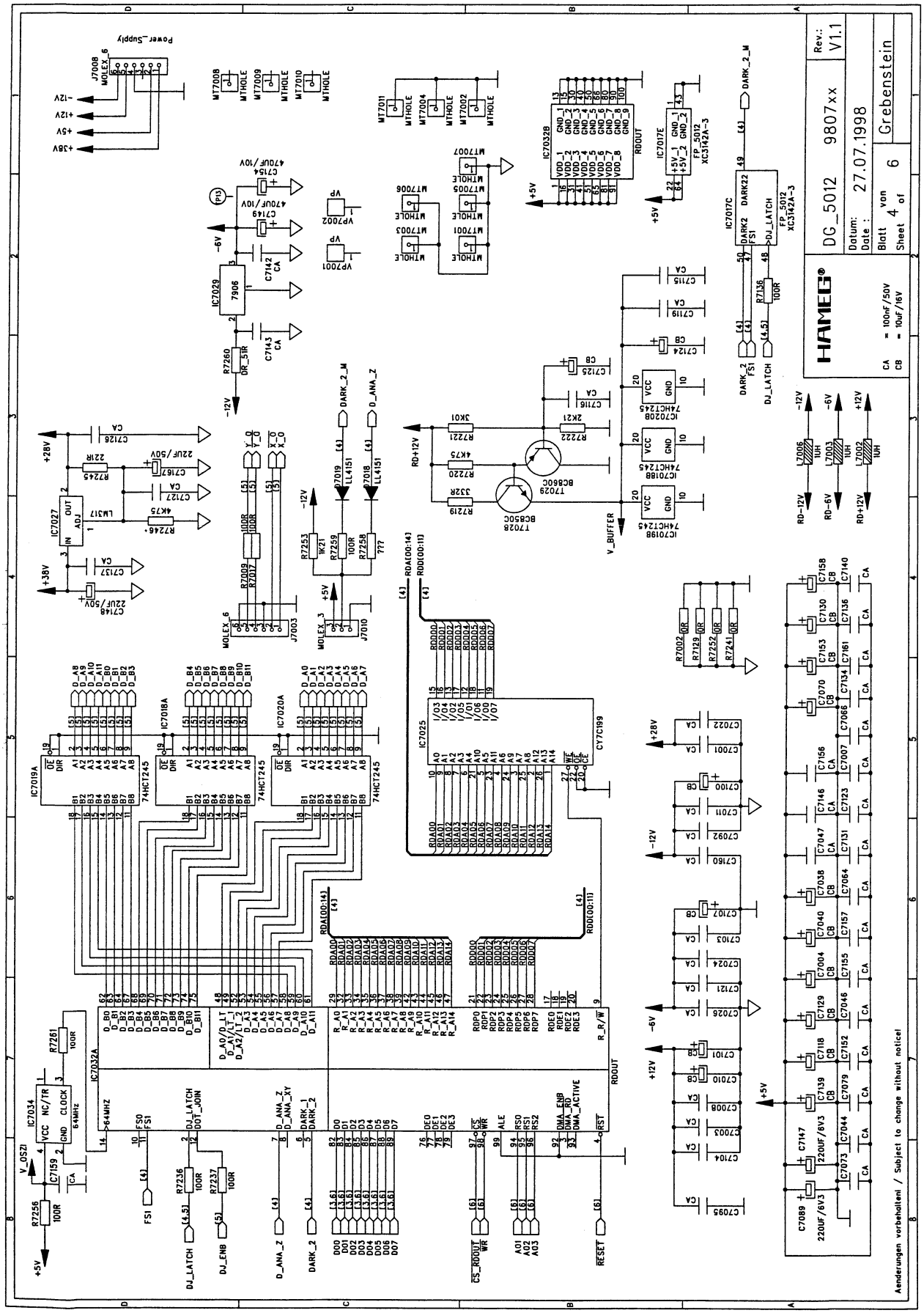

HAMEG
DG_5012 9807xx
Rev.: V1.1
Datum: 27.07.1998
Date :
Blatt 1 von 6
Sheet 1 of 6
Grebenstein
CA = 100nF/50V
CB = 10uF/16V
Aenderungen vorbehalten! / Subject to change without notice!
MARK_SEL
MARKER_DAC
DAC_CORMARK
DAC_P8
SAWTHOLD
SAWTEN
VREF
MARK_POS
V_TUN
ZERO_ON
VCO_FREQ
V_TUN_COR
SEL_SP1
SEL_SP2
DAC_SAWCOR
DAC_CORPOS
DAC_P16
DAC_CENADJ
DAC_MARKCENT
CF_DAC
SCANWA
SCANWB
SCANWC
SCANWD
IC7022C
HEF4053
IC7002D
LM324
IC7002C
IC7002A
IC7002B
IC7015A
LM2901
IC7006C
IC7006A
IC7006B
TL074
IC7011A
IC7016A
HEF4051
T7016
T7014
T7017
T7020
T7027
BC860C
BC850C
BCR182
D7010
D7008
ZD10V
J7001
J7005
J7006
WOLEX_6
NTC_KOAX
+28V
+5V
-6V
-12V
VREF

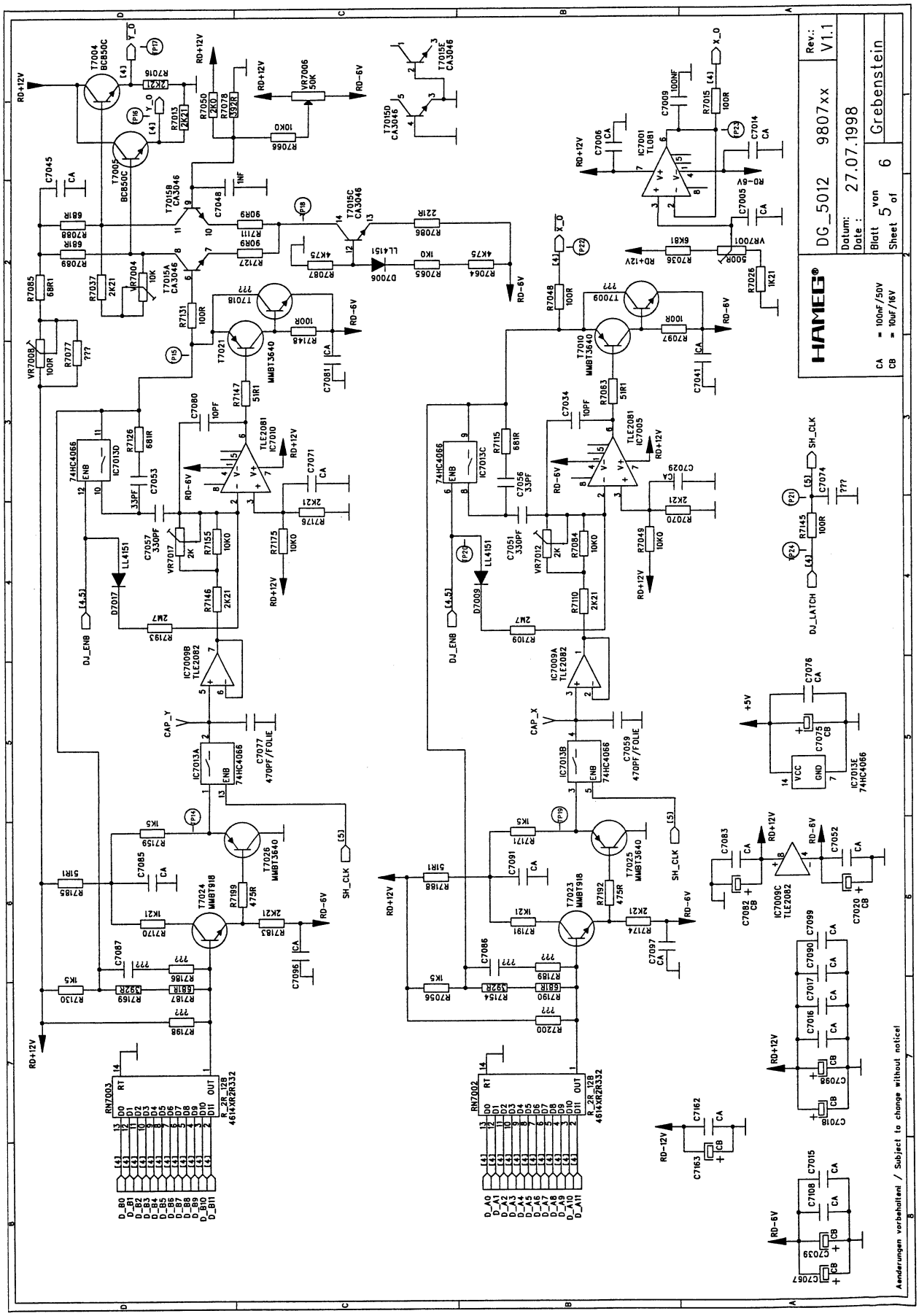
Digital Board - Diagram

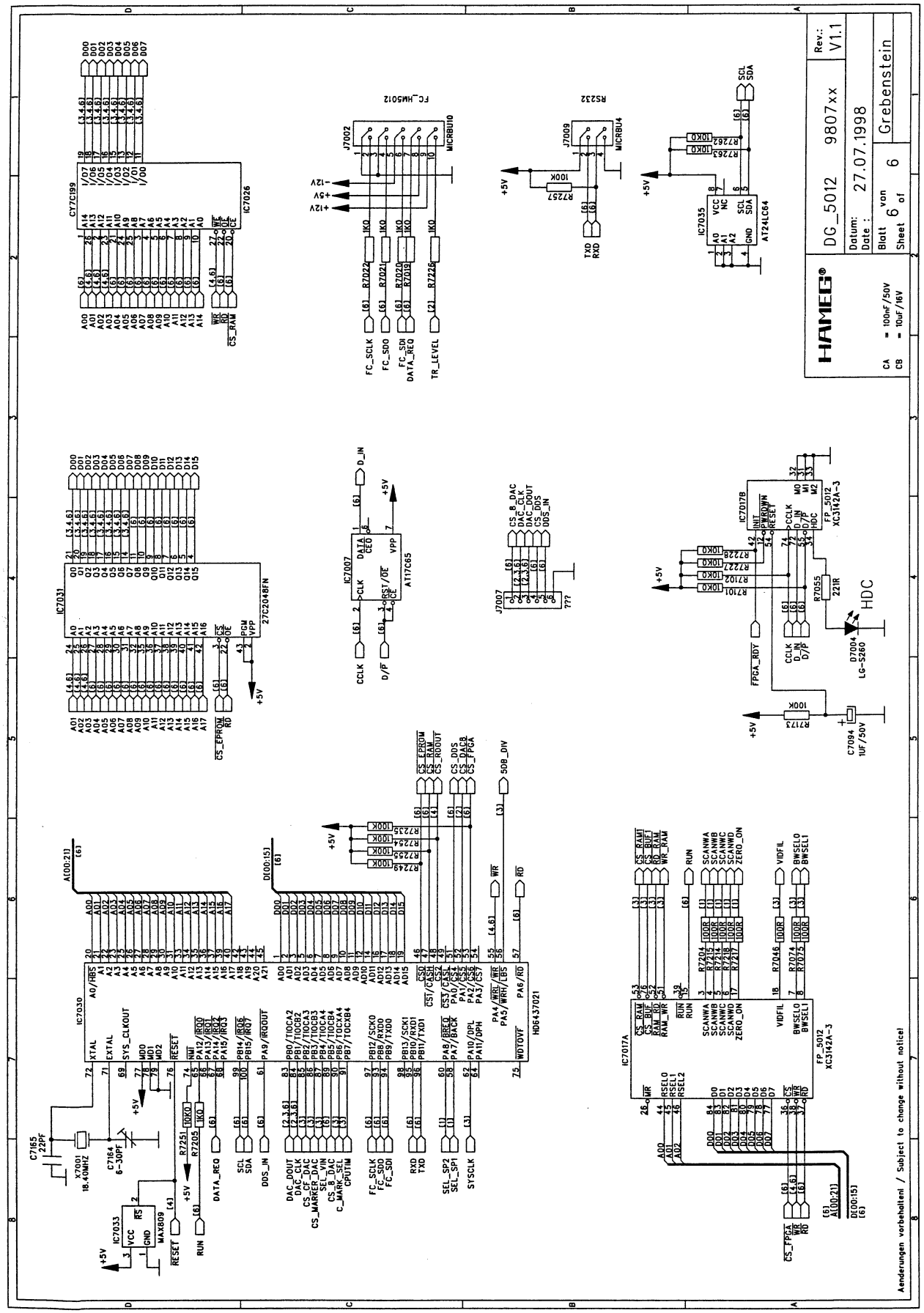



HAMEG
DG_5012 9807xx
Datum: 27.07.1998
Date :
Blatt 3 von 6
Sheet 3 of 6
Grebenstein
Rev.: V1.1
CA = 100nF/50V
CB = 10uF/16V
Aenderungen vorbehalten / Subject to change without notice

Digital Board - Diagram




HAMEG®
DG_5012 9807xx
Rev.: V1.1
Datum: 27.07.1998
Date :
Blatt 5 von 6
Sheet 5 of 6
Grebenstein
CA = 100nF/50V
CB = 10uF/16V
Aenderungen vorbehalten! / Subject to change without notice!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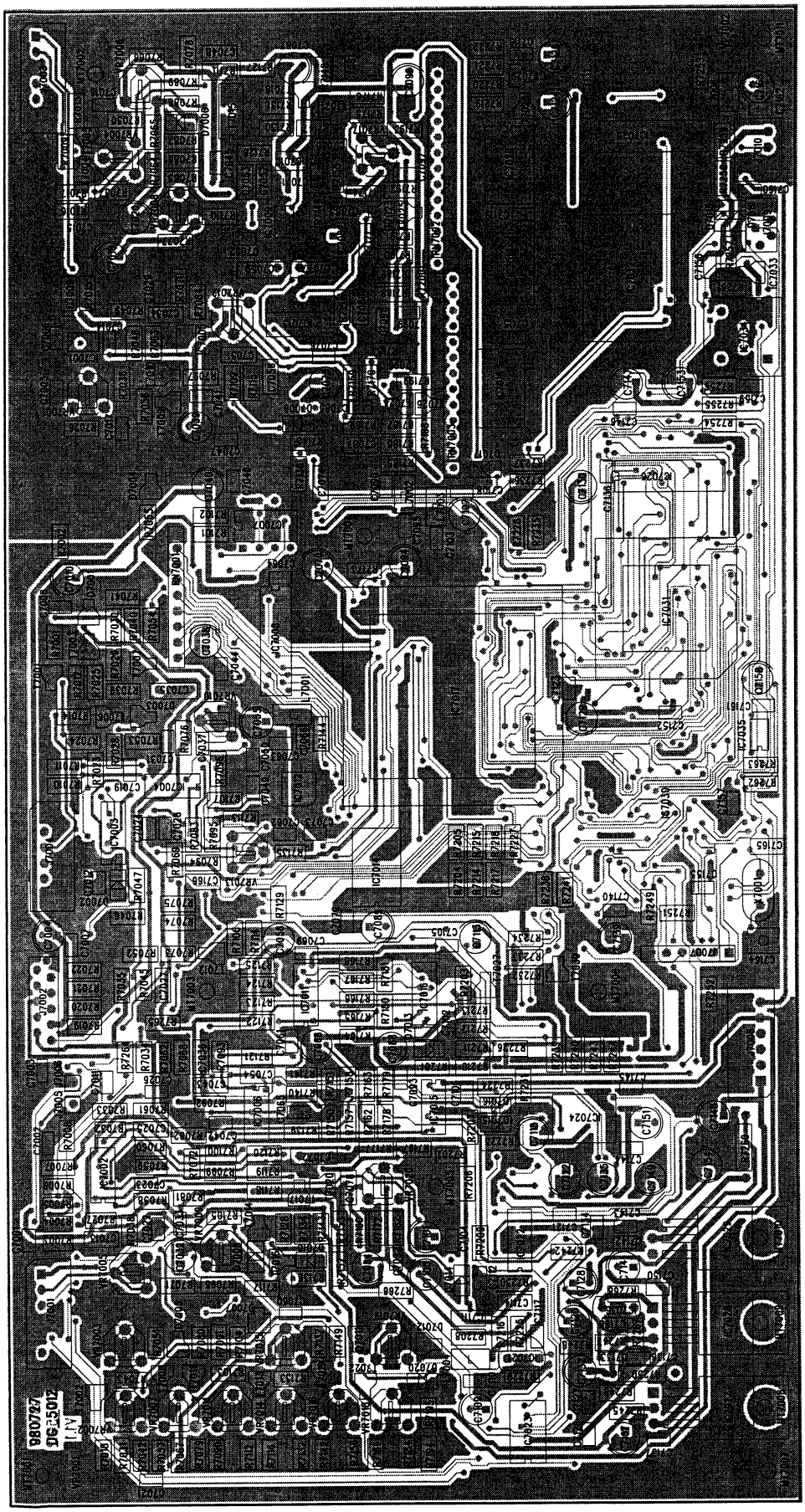
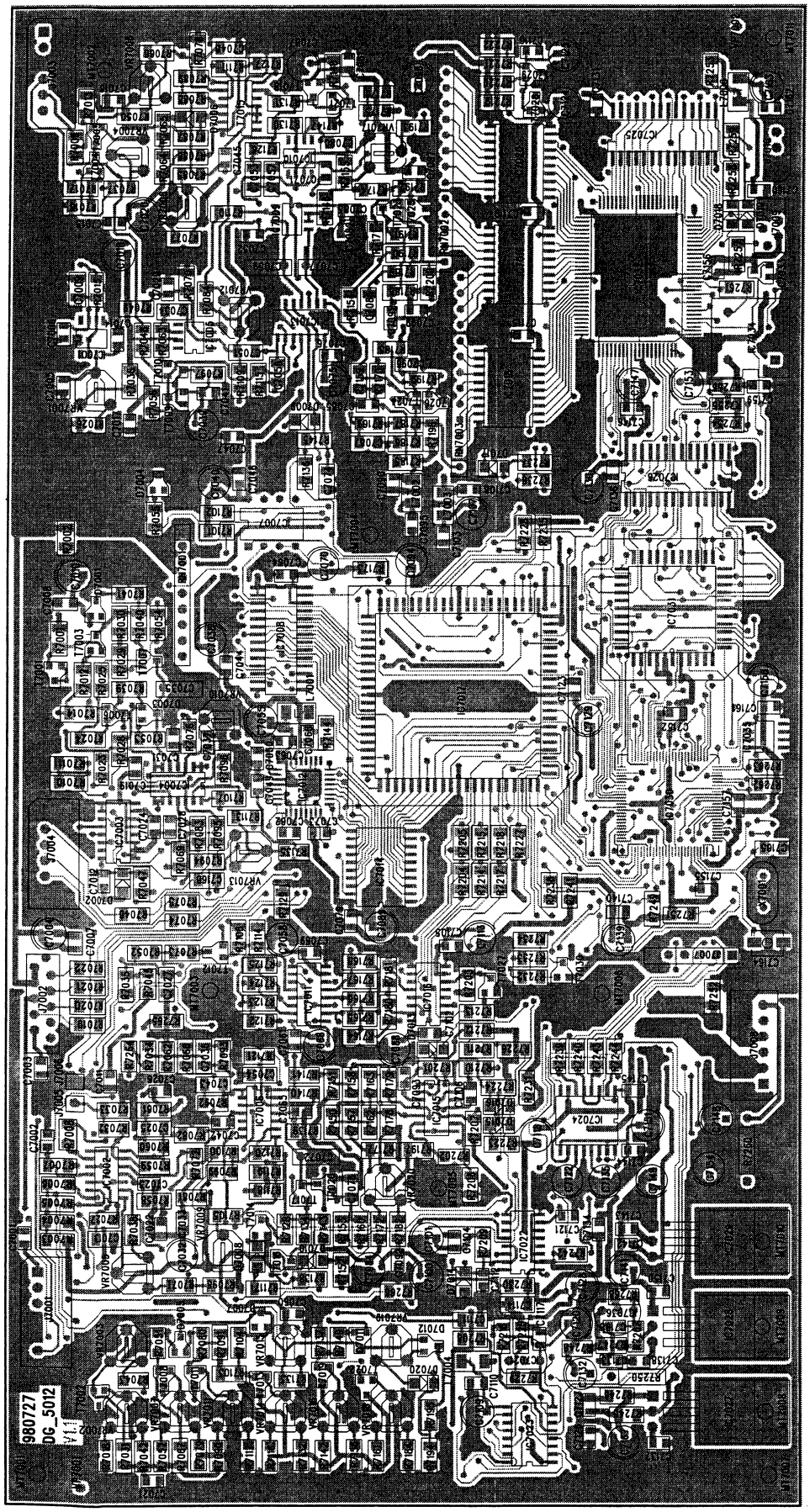
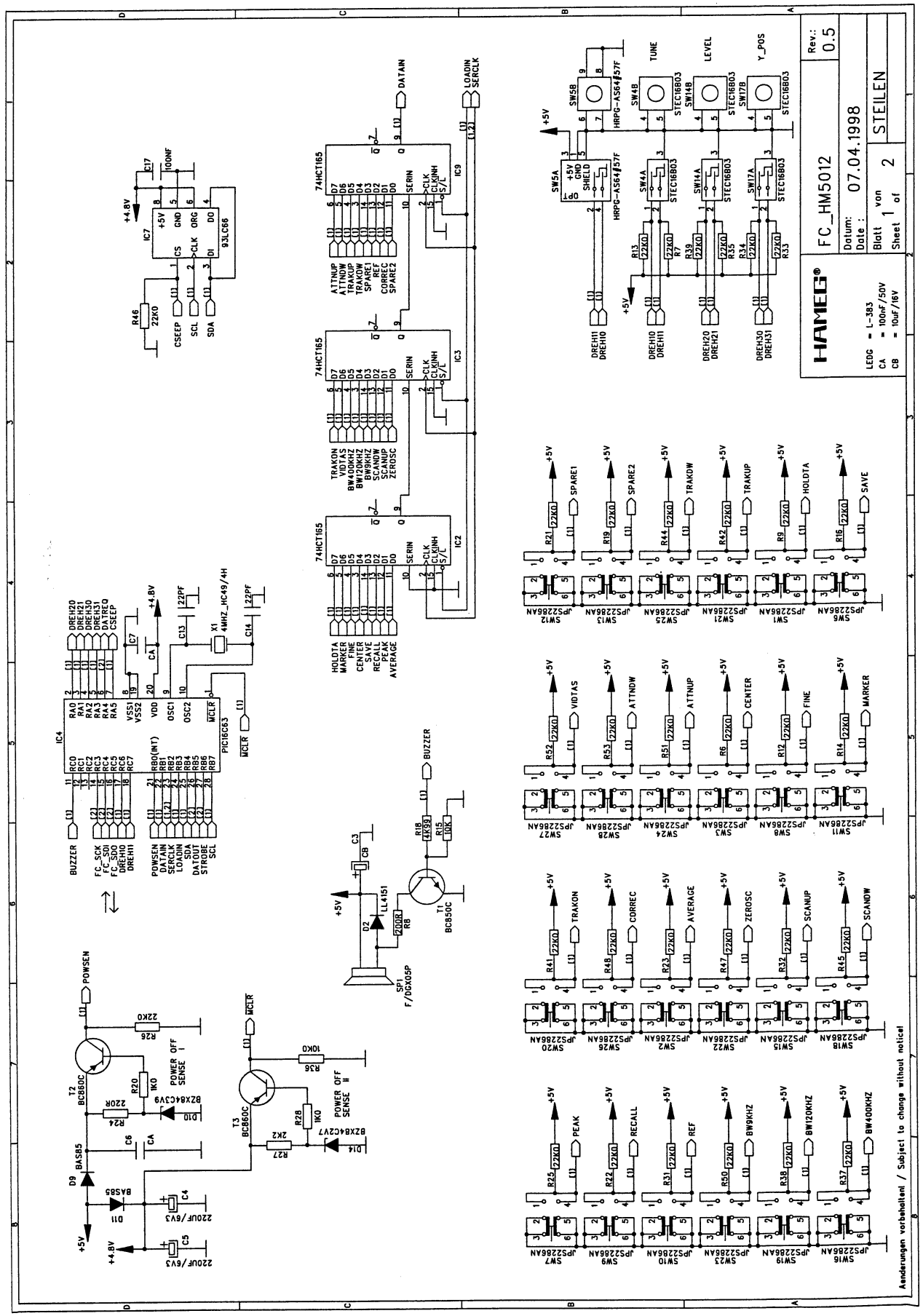
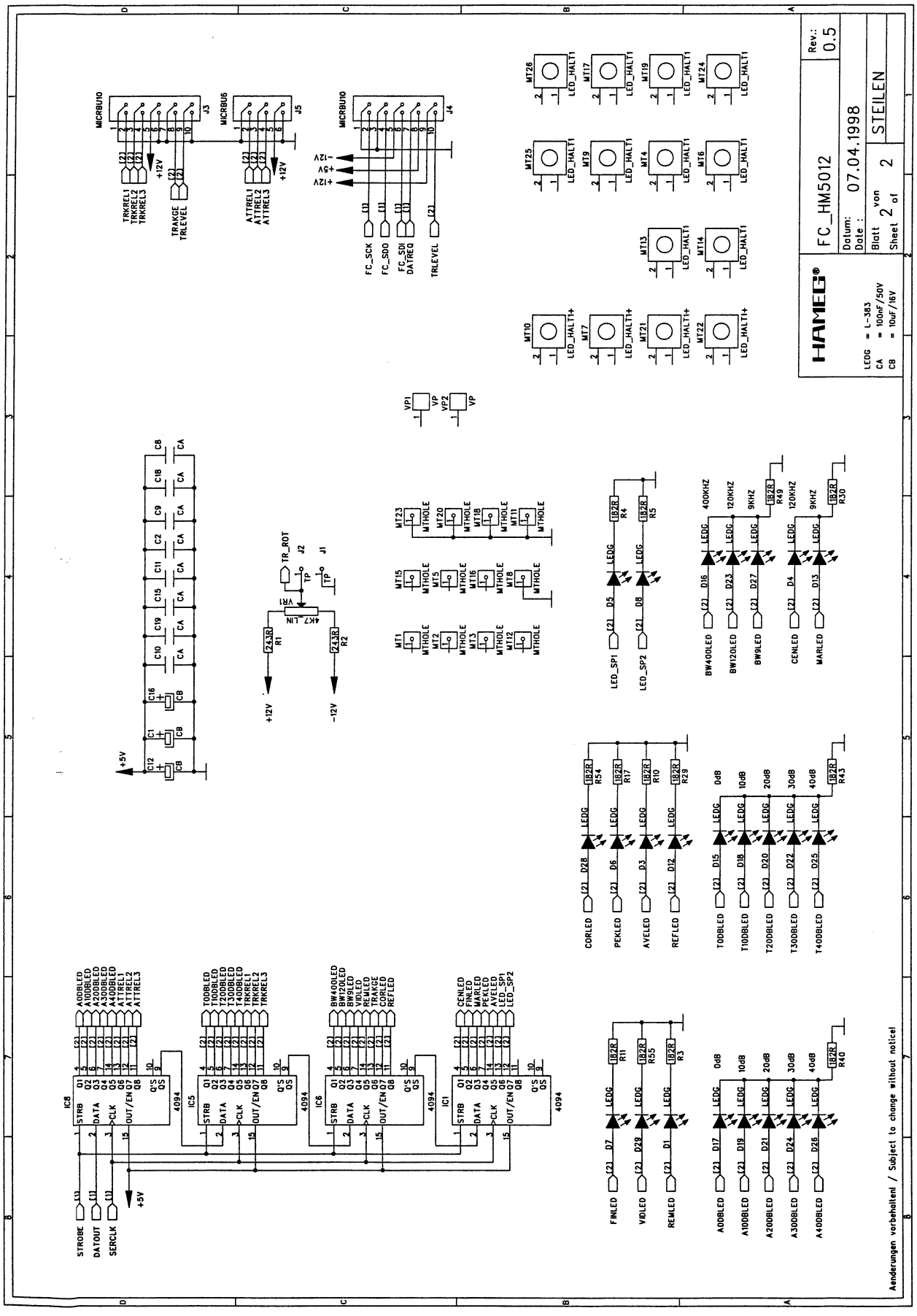
DG_5012 9807xx
Rev.: V1.1
Datum: 27.07.1998
Blatt 6 von 6
Sheet 6 of 6
Grebenstein
CA = 100nF/50V
CB = 10uF/16V
Aenderungen vorbehalten! / Subject to change without notice!
IC7030
IC7031
IC7033
IC7035
IC7036
IC7007
IC7017A
IC7017B
IC7026
IC7078
J7002
J7009
J7007
FC_HM5012
RS232
HDC
D7004
LG-5260
X7001
18.40MHZ
C7155
22PF
C7164
6-30PF
C7094
1UF/50V
R7251
R7205
R7255
R7254
R7253
R7252
R7249
R7257
R7173
R7055
221R
R7228
R7227
R7102
R7101
R7262
R7263
R7022
R7021
R7020
R7019
R7226
R7204
R7214
R7218
R7217
R7046
R7074
R7073
MAX809
AT24LC64
AT17C65
27C2048FN
HD6437021
FP_5012
XC3142A-3
CY7C199



Digital Board - Bottom side




HAMEG
FC_HM5012
Datum: 07.04.1998
Date :
Blatt von 2
Sheet 1 of 2
STEILEN
Rev.: 0.5
LEDG = L-383
CA = 100nF/50V
CB = 10uF/16V
Aenderungen vorbehalten! / Subject to change without notice!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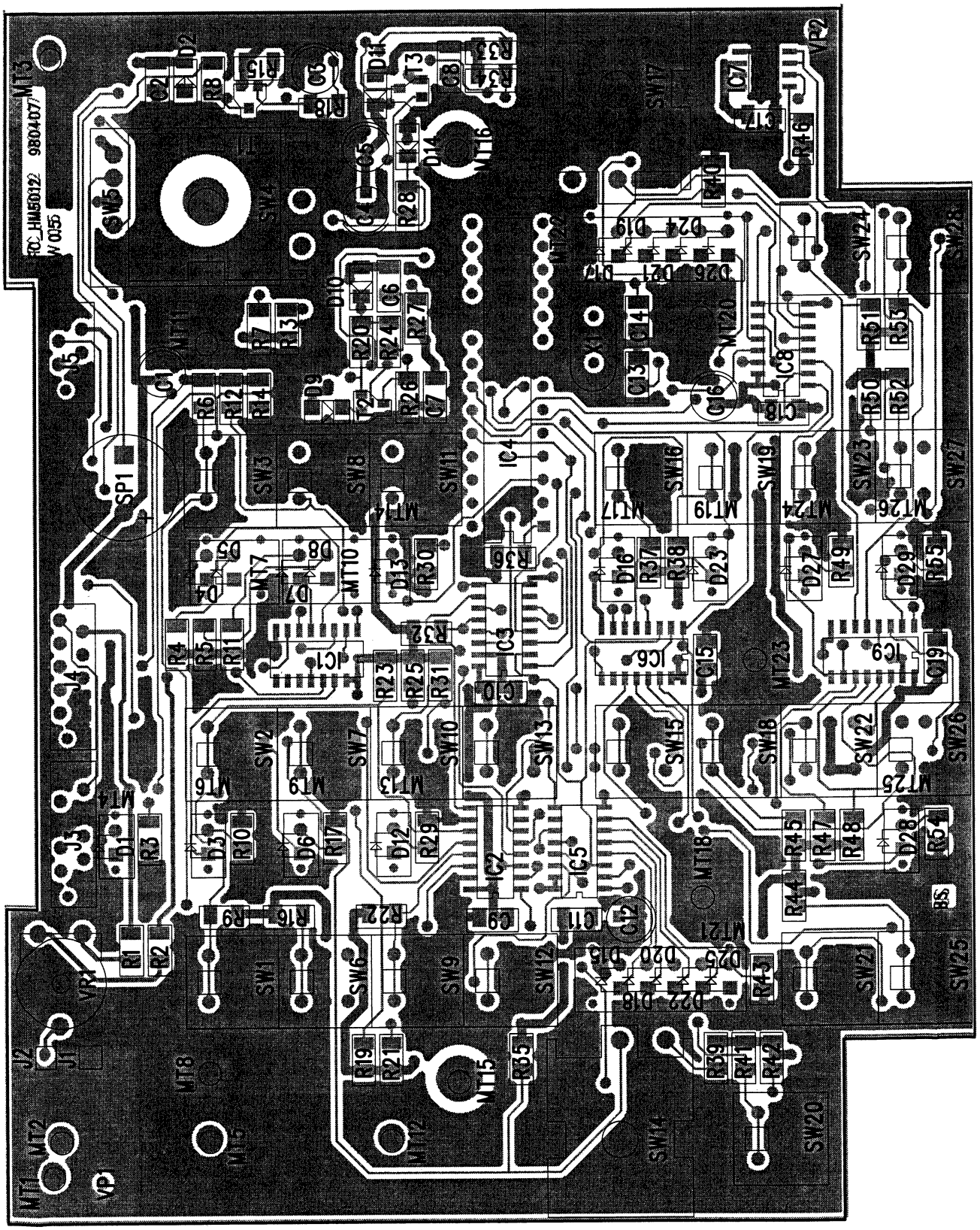
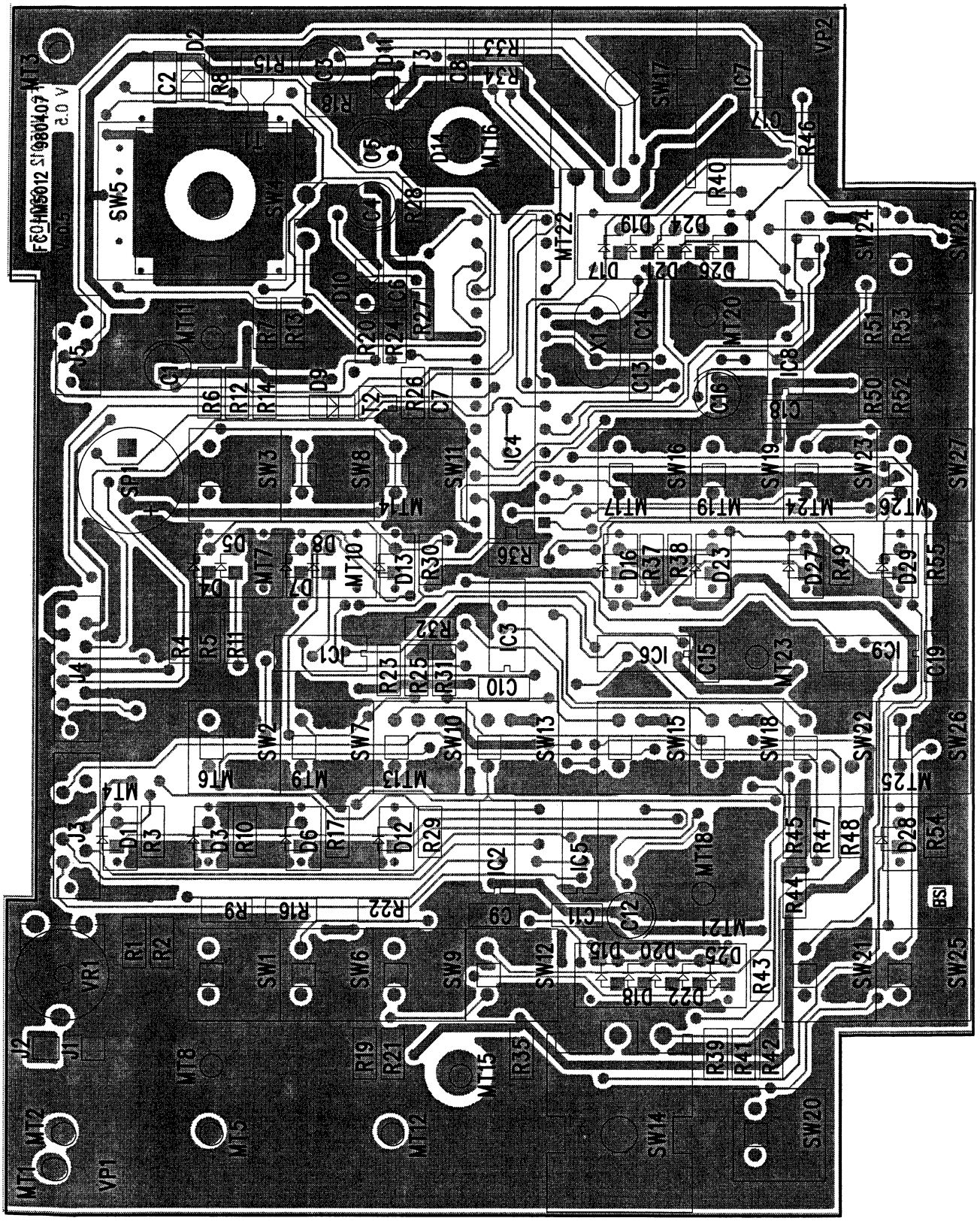
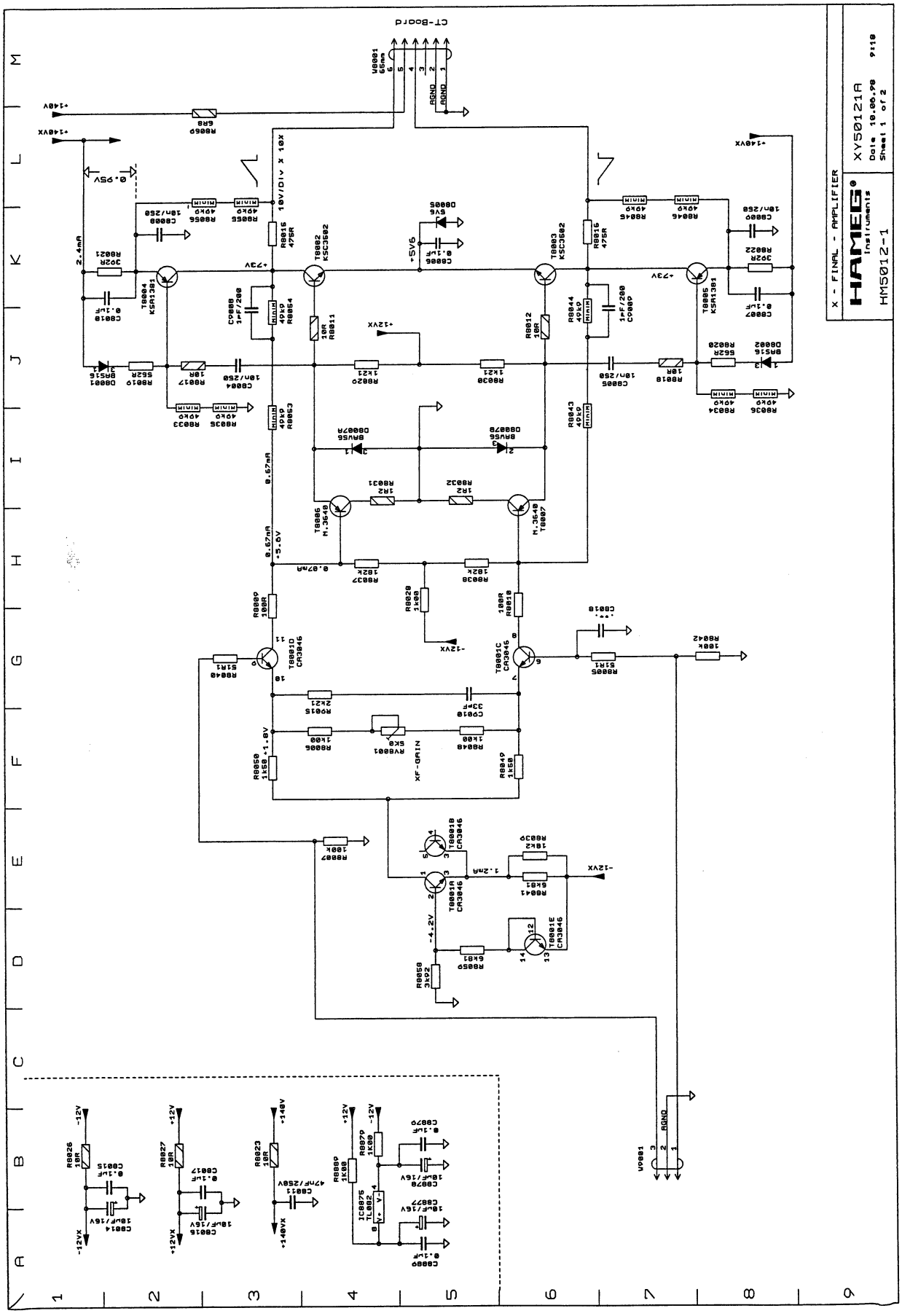
FC_HM5012
Rev.: 0.5
Datum: 07.04.1998
Date :
Blatt 2 von 2
Sheet 2 of 2
STEILEN
LEDG = L-383
CA = 100nF/50V
CB = 10uF/16V
Aenderungen vorbehalten! / Subject to change without notice!

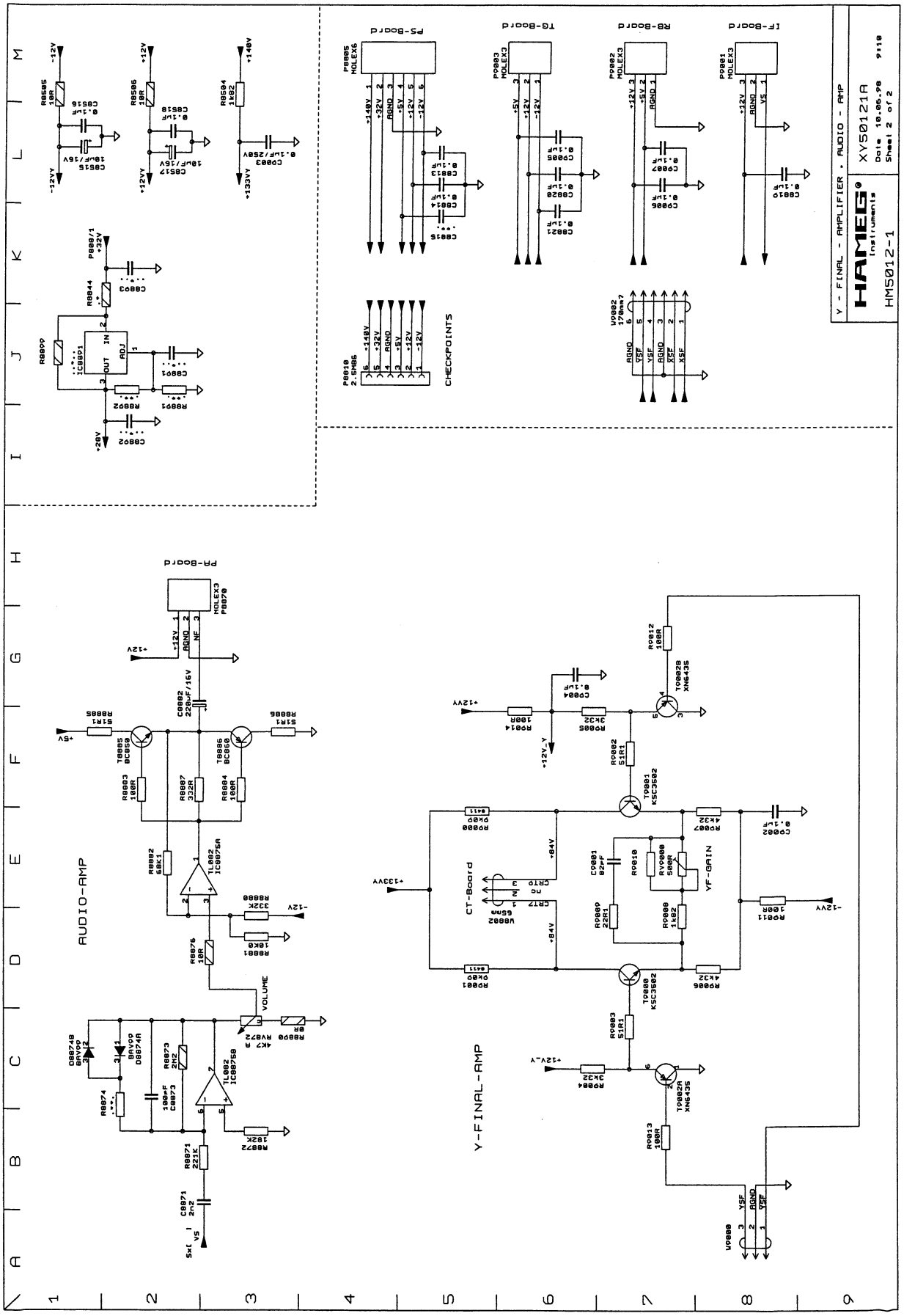


FC Board - Bottom side

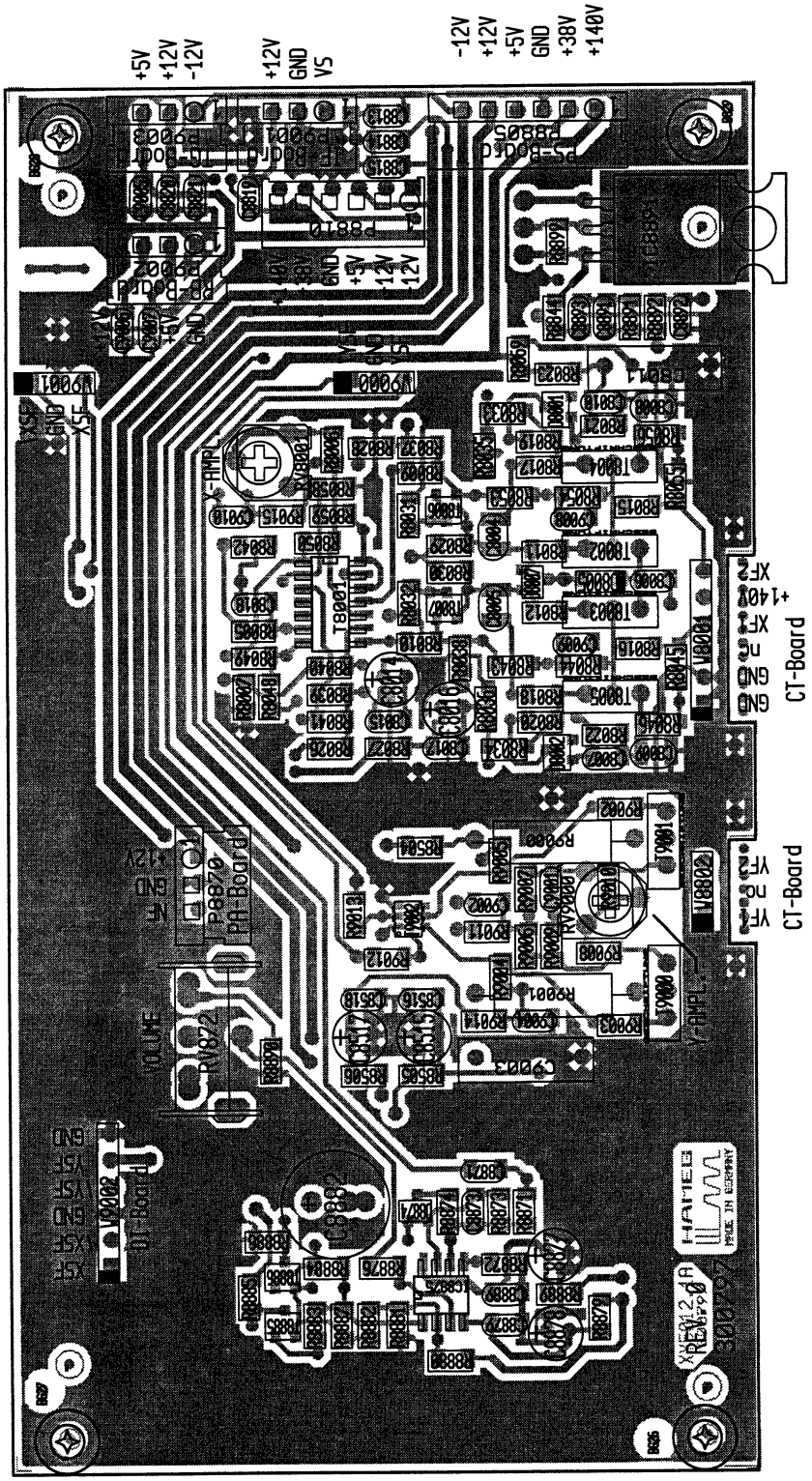



CT-Board
X - FINAL - AMPLIFIER
HAMEG Instruments
XY50121A
HM5012-1
AGND
XF-GAIN

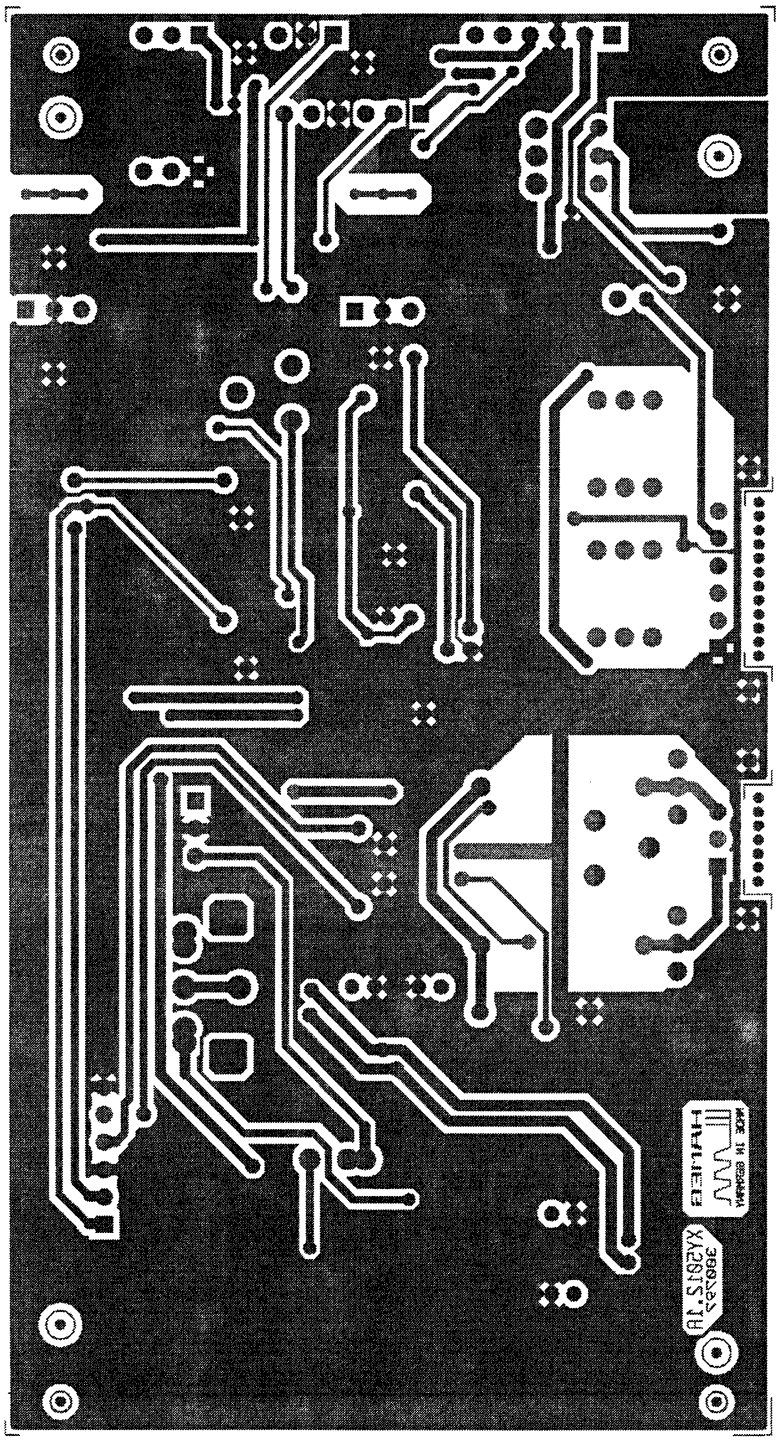
XY Board - Diagram

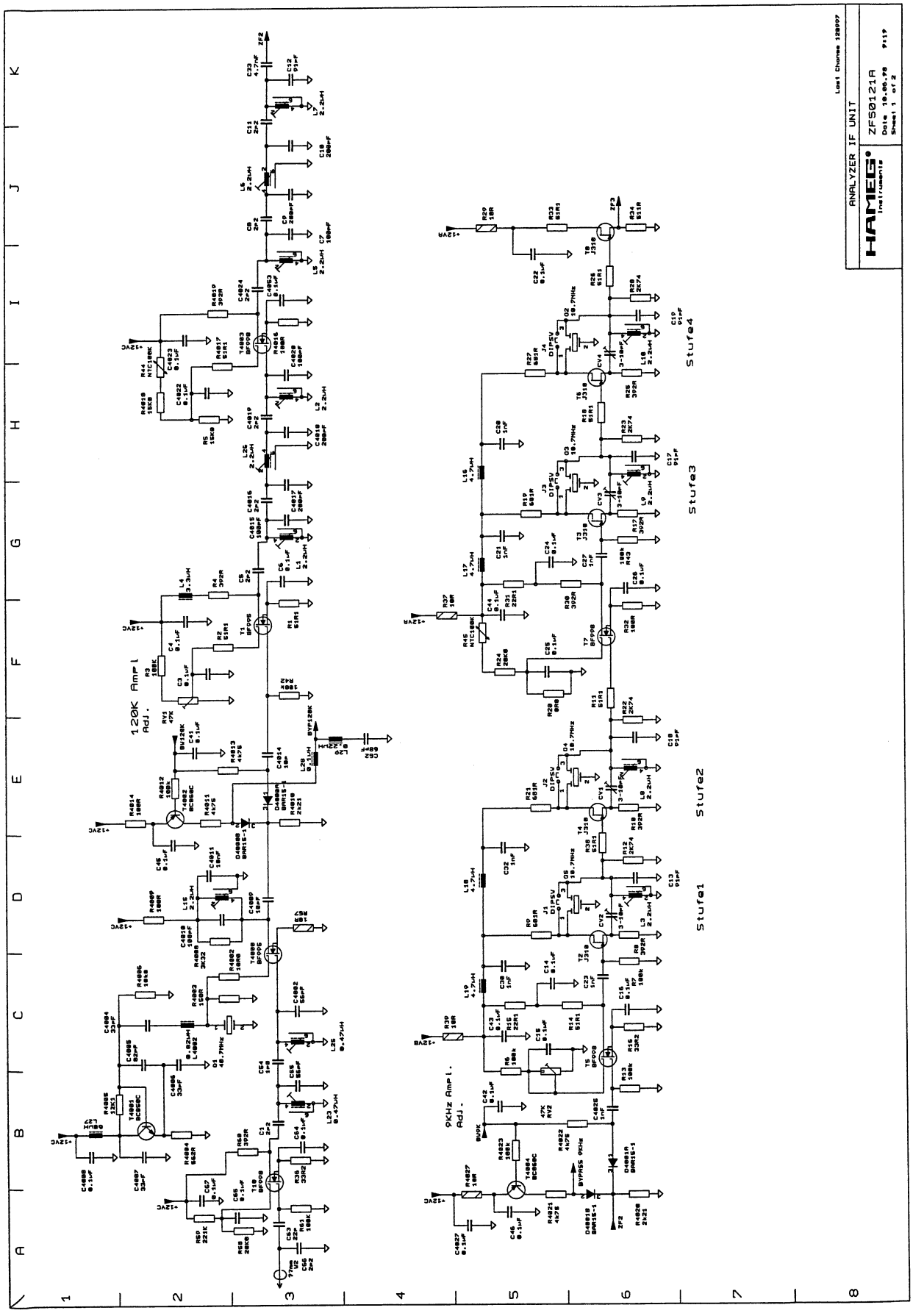


Subject to change without notice

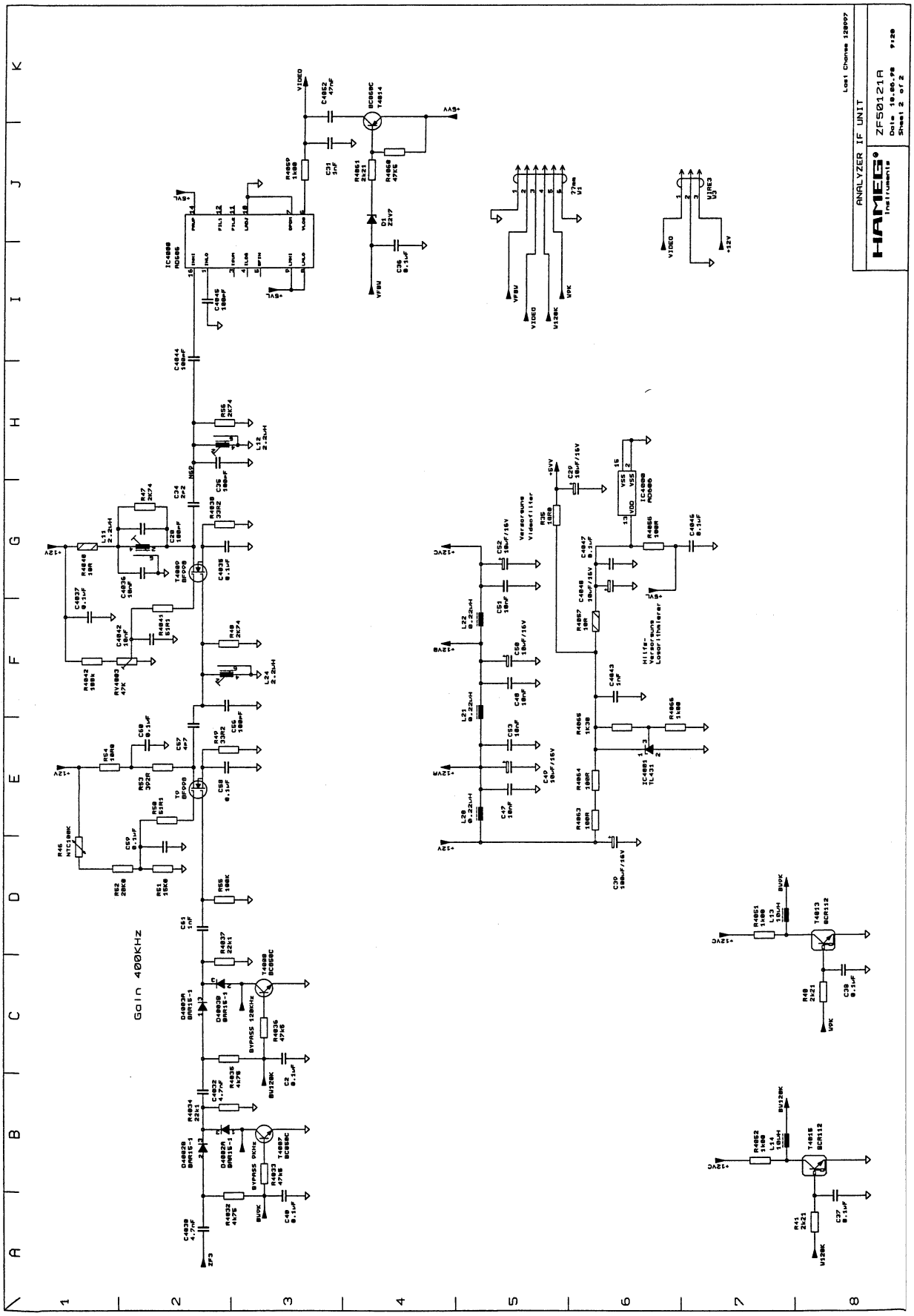

+5V
+12V
-12V
+12V
GND
VS
-12V
+12V
+5V
GND
+38V
+140V
CT-Board
CT-Board
FA Board
FA Board
XSF
XSF
XSF

XY Board - Bottom side

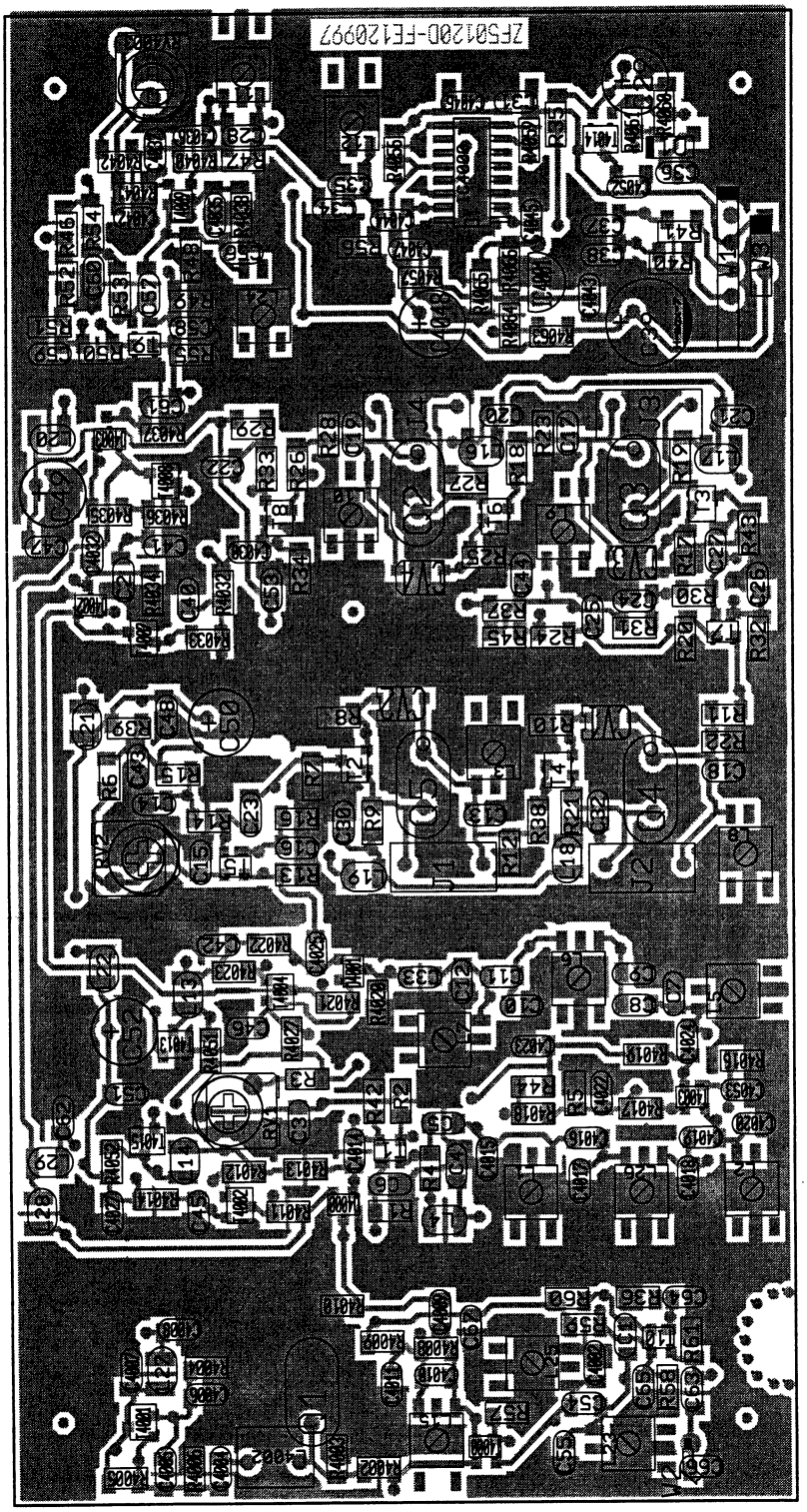



ANALYZER IF UNIT
HAMEG
ZFS0121A
Date 10.00.98
Sheet 1 of 2
Last Change 120997
120K Ampl
Adj.
9KHz Ampl.
Adj.
Stufe1
Stufe2
Stufe3
Stufe4

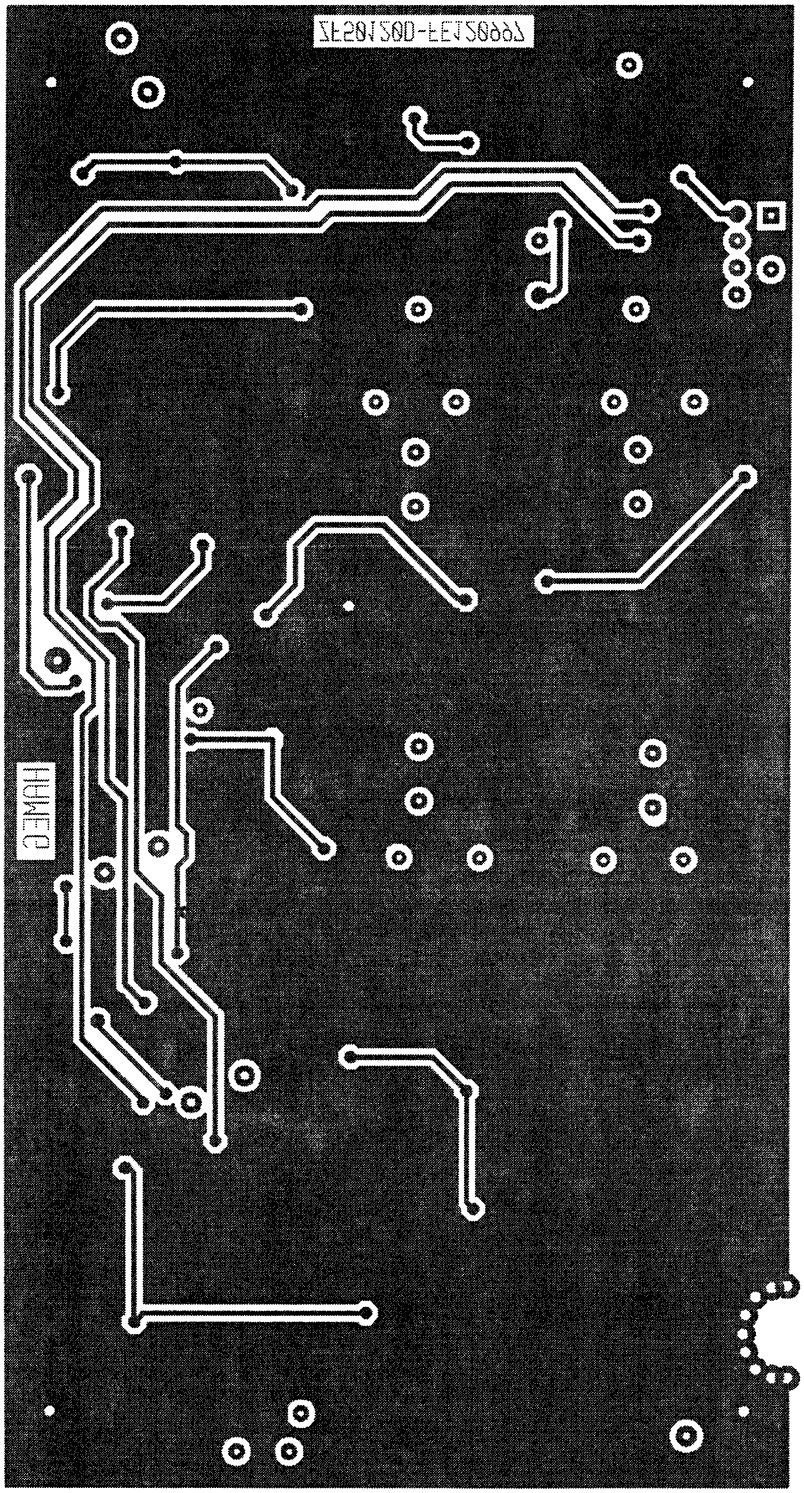
ZF Board - Diagram



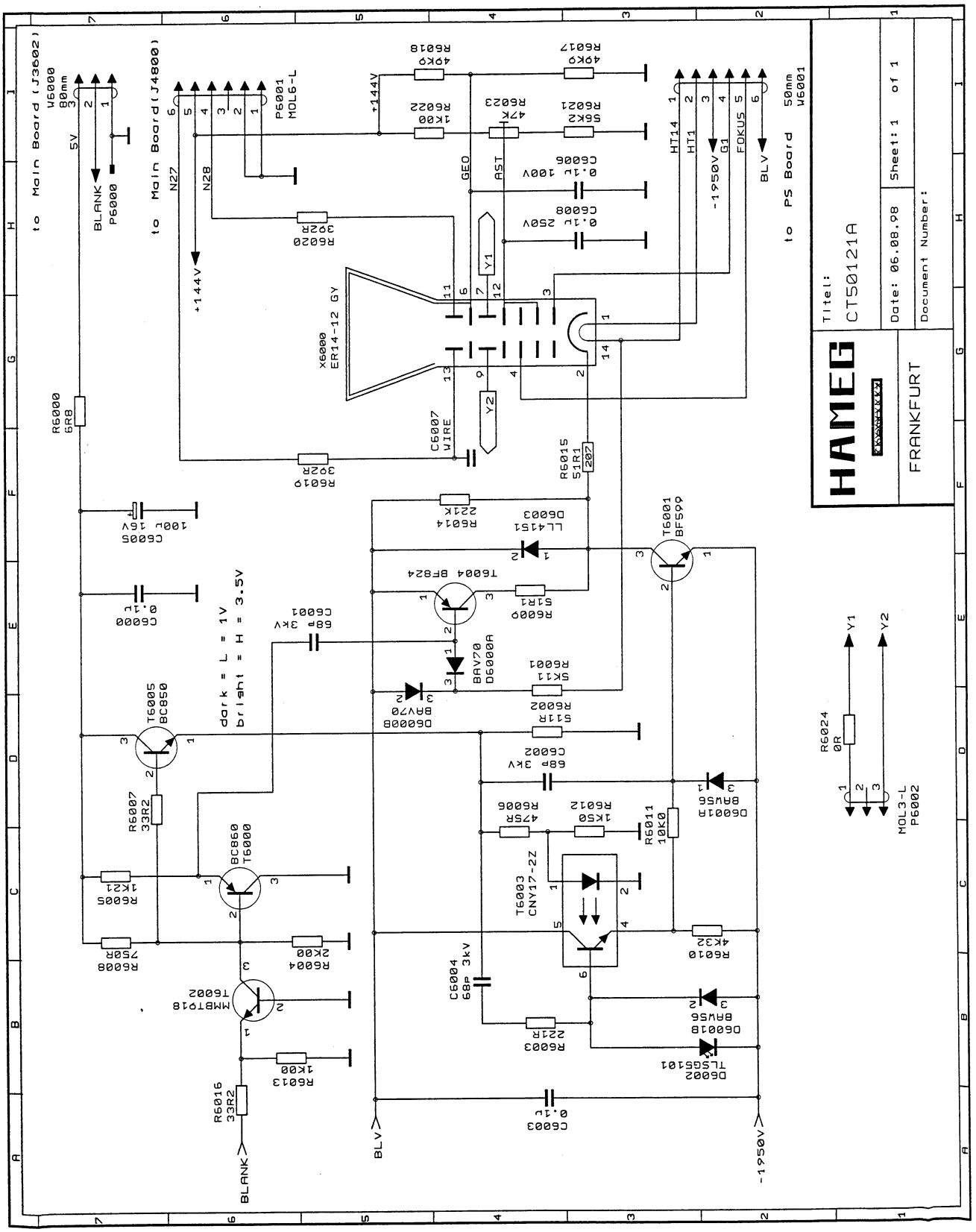
Subject to change without notice


ZF5012OD-FE120997

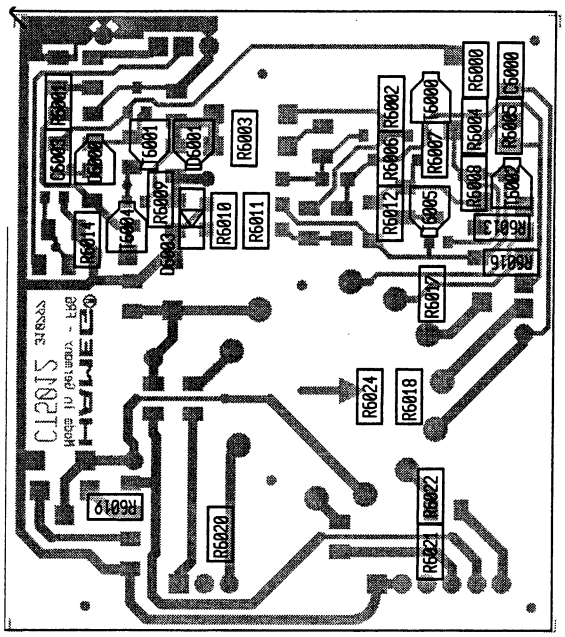
ZF Board - Bottom side

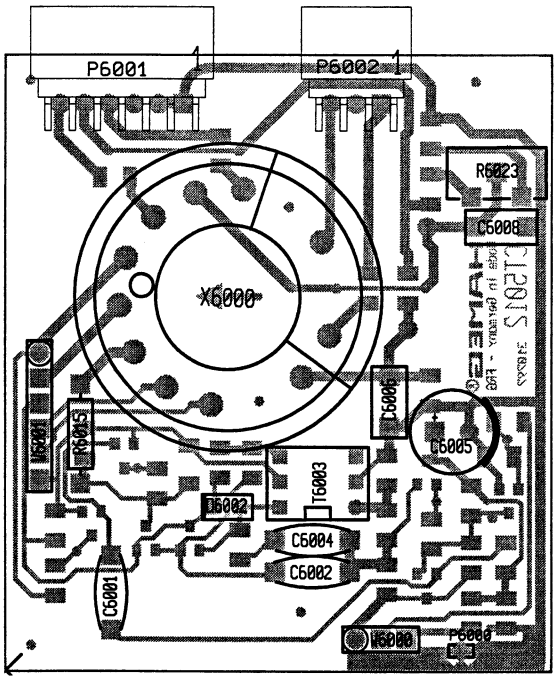


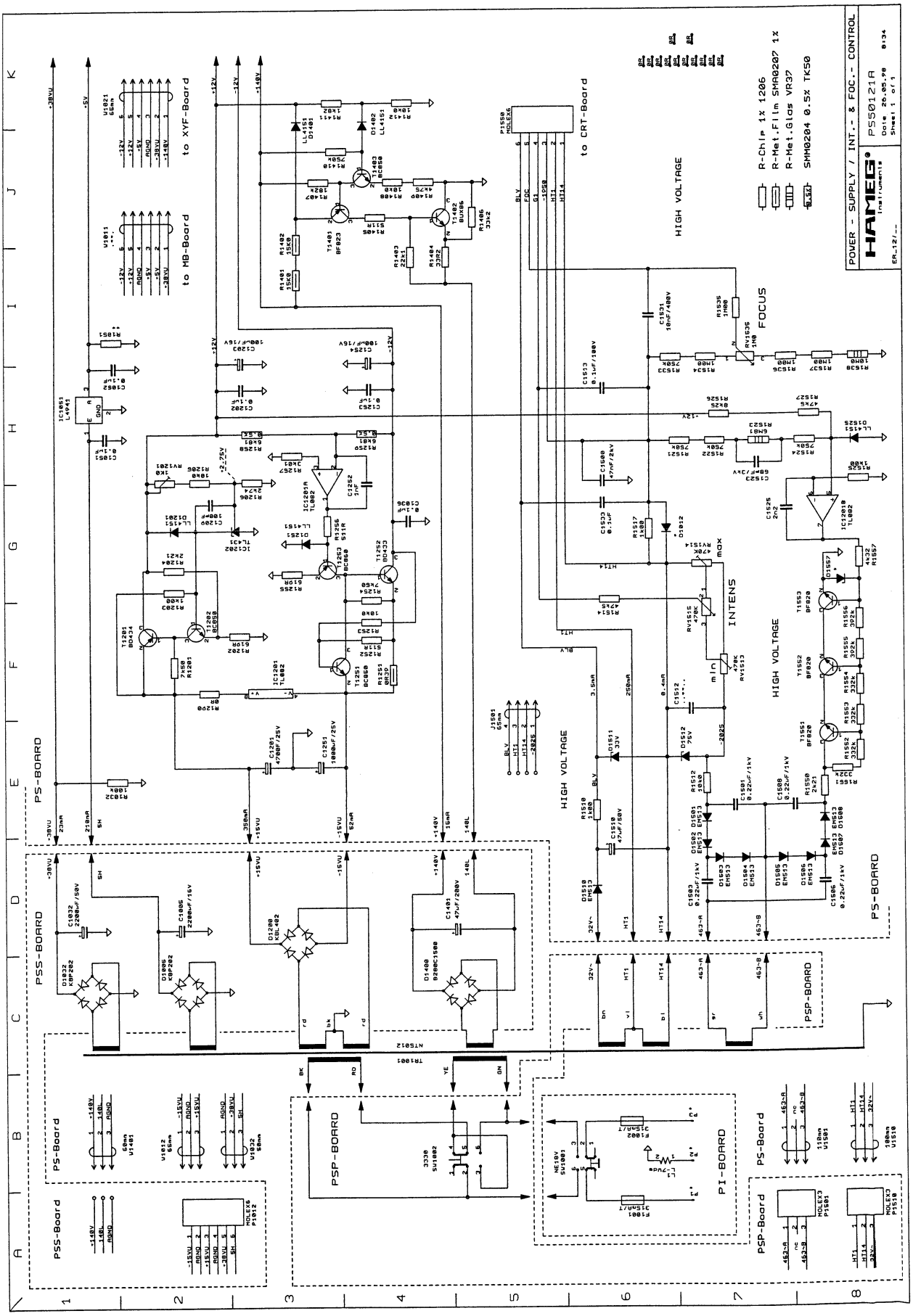
Subject to change without notice


to Main Board (J3602)
to Main Board (J4800)
to PS Board
HAMEG
FRANKFURT
Titel: CT50121A
Date: 06.08.98
Sheet: 1 of 1
Document Number:
dark = L = 1V
bright = H = 3.5V
BLANK
BLV
-1950V
+144V
5V
Y1
Y2
GEO
AST
FOKUS
G1
HT1
HT14
BC860 T6000
BC850 T6005
MMBT918 T6002
BF599 T6001
BF824 T6004
CNY17-2Z T6003
BAV70 D6000A
BAV70 D6000B
BAW56 D6001A
BAW56 D6001B
TLSG5101 D6002
LL4151 D6003
ER14-12 GY X6000
MOL6-L P6001
MOL3-L P6002

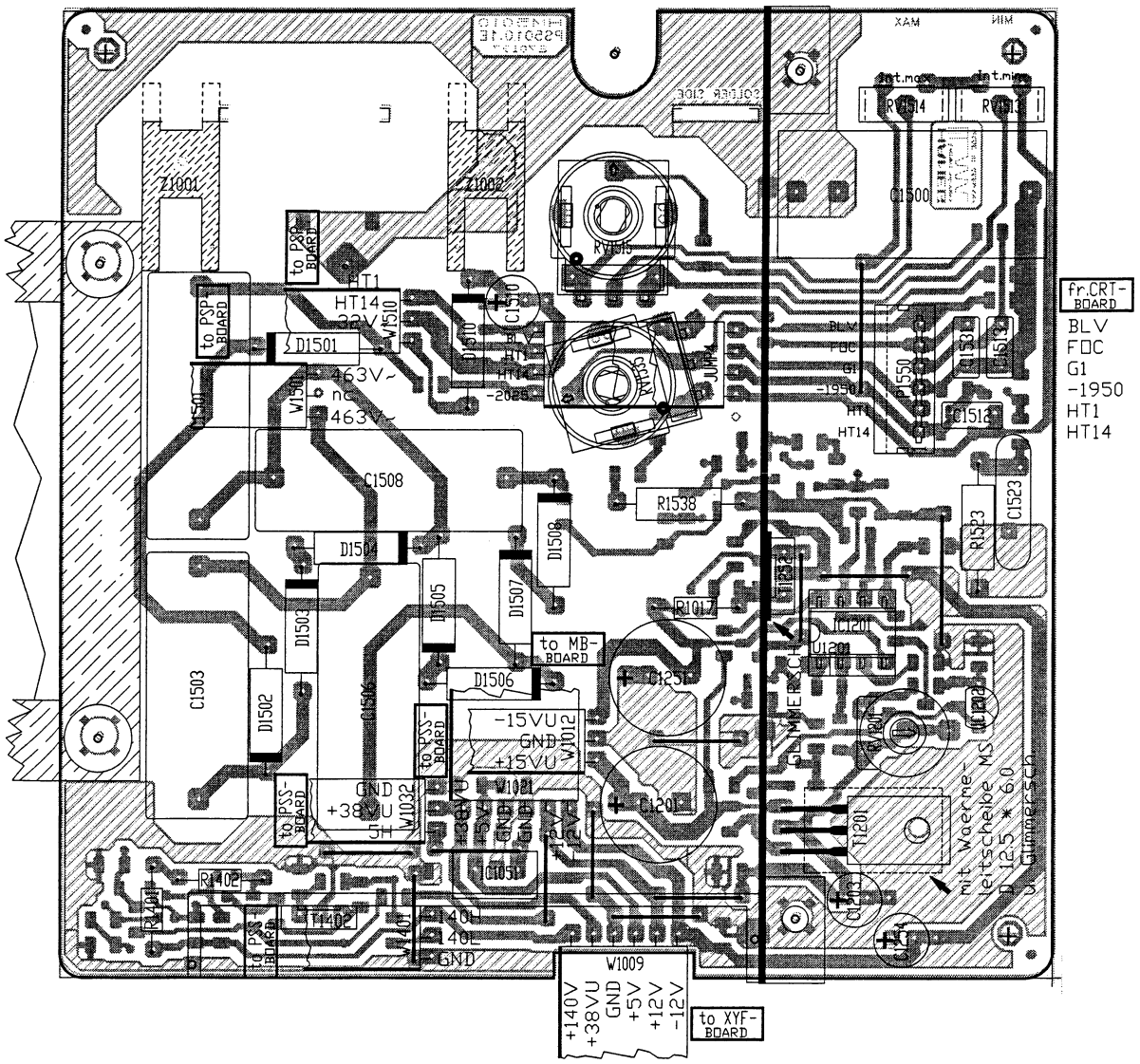
CRT Board - Top and bottom side

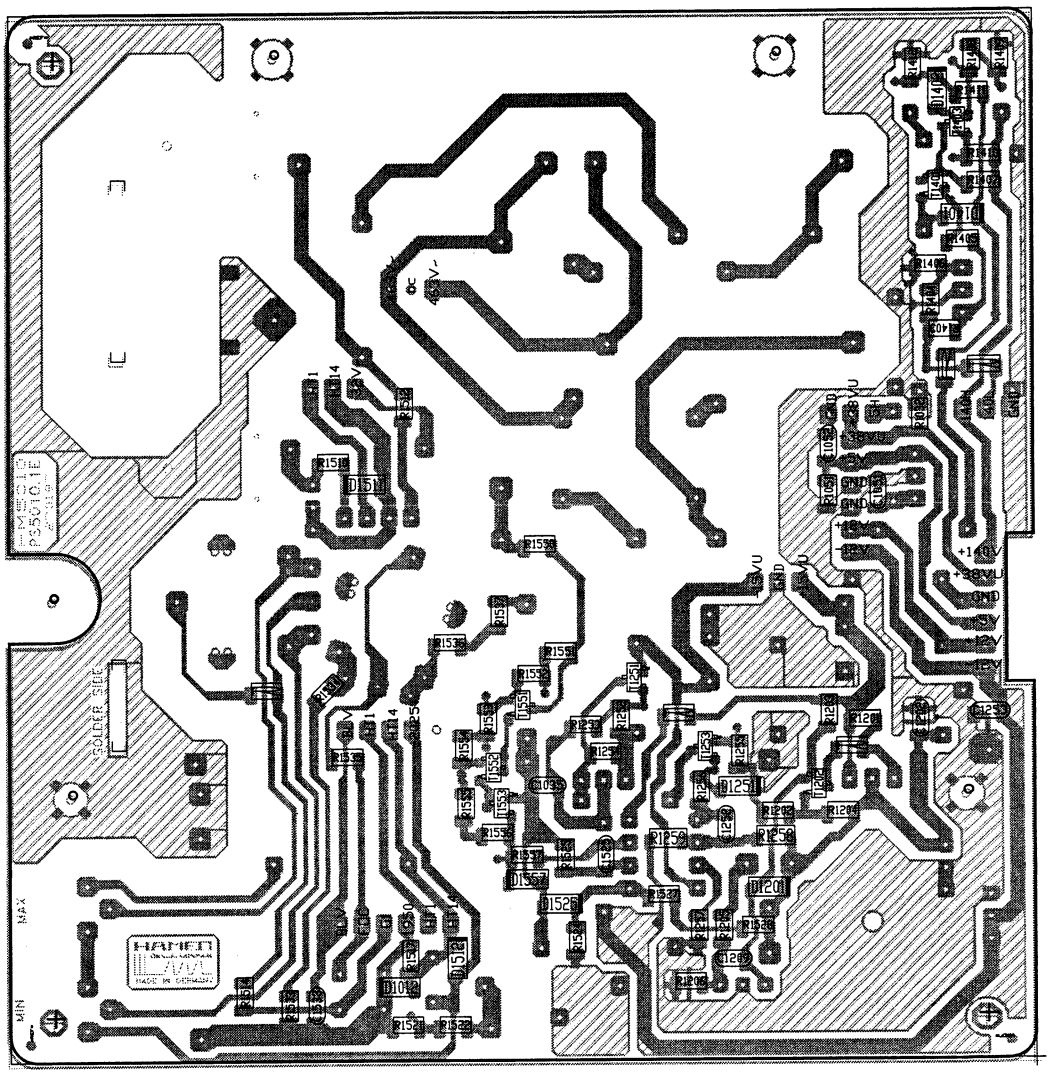




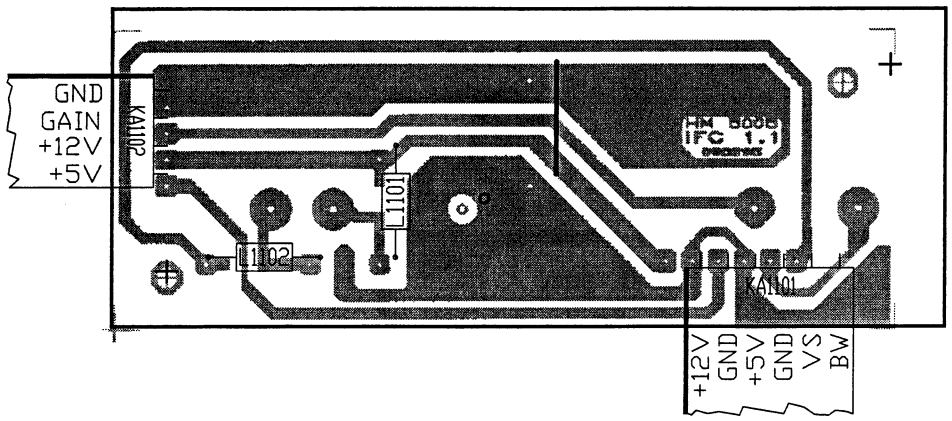

POWER - SUPPLY / INT.- & FOC.- CONTROL
HAMEG Instruments
PSS01211A
Date 26.05.98
Sheet 1 of 1
R-Chip 1% 1206
R-Met.Film SMA0207 1%
R-Met.Glas VR37
SMM0204 0.5% TK50
HIGH VOLTAGE
FOCUS
INTENS
to CRT-Board
to XYF-Board
to MB-Board
PS-BOARD
PSS-BOARD
PSP-BOARD
PI-BOARD
PSS-Board
PS-Board
PSP-Board

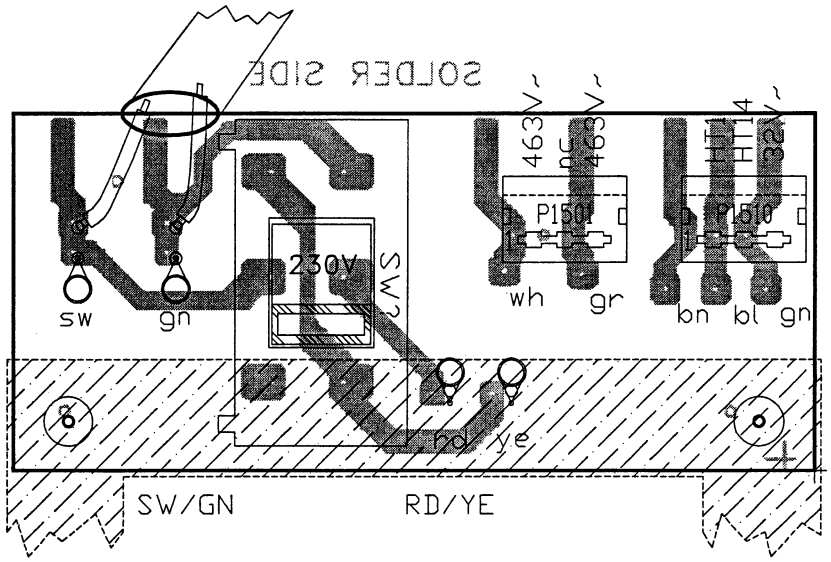
PS Board - Top side

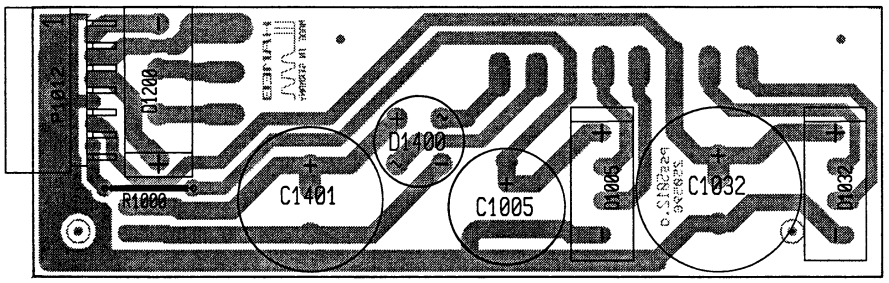


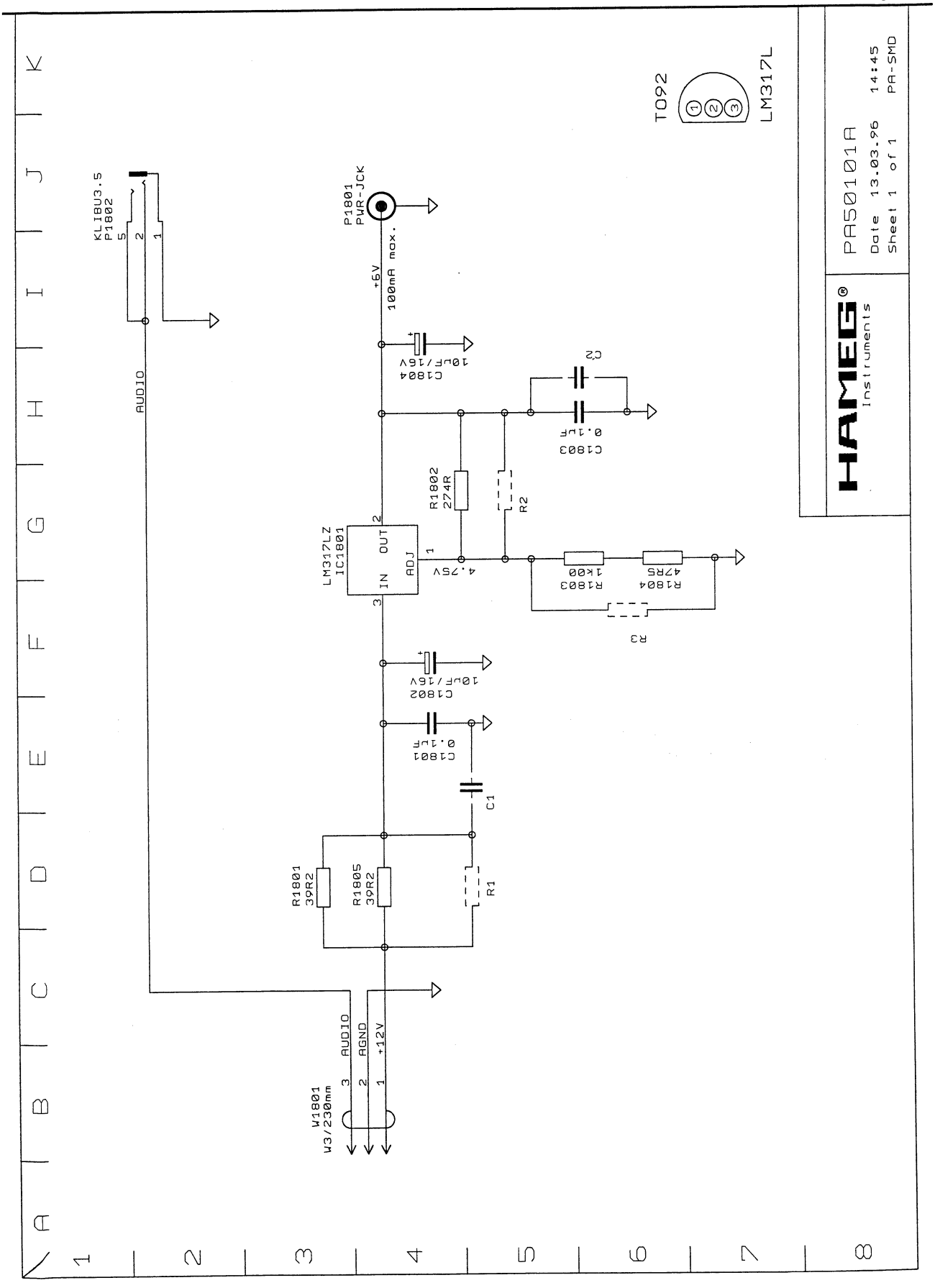


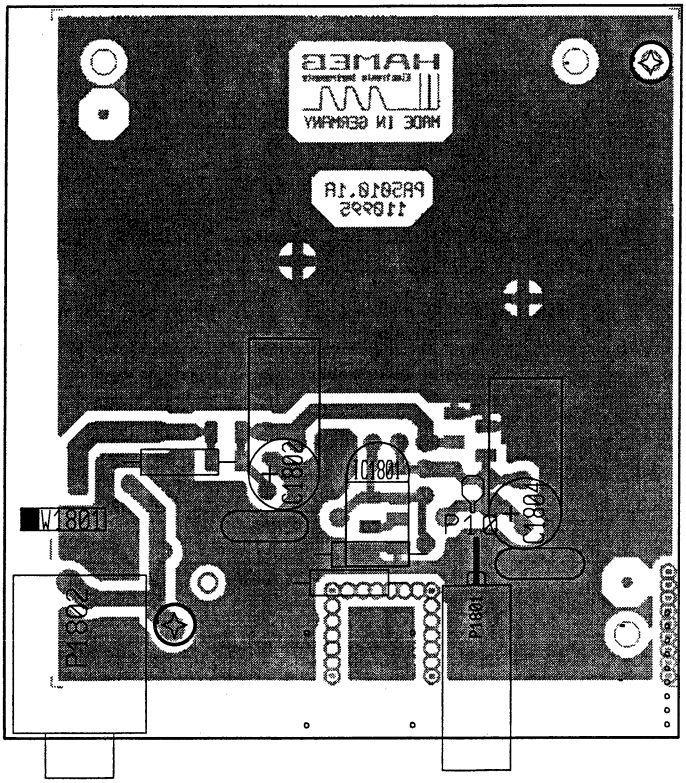
PSP and PSS Board - Top side

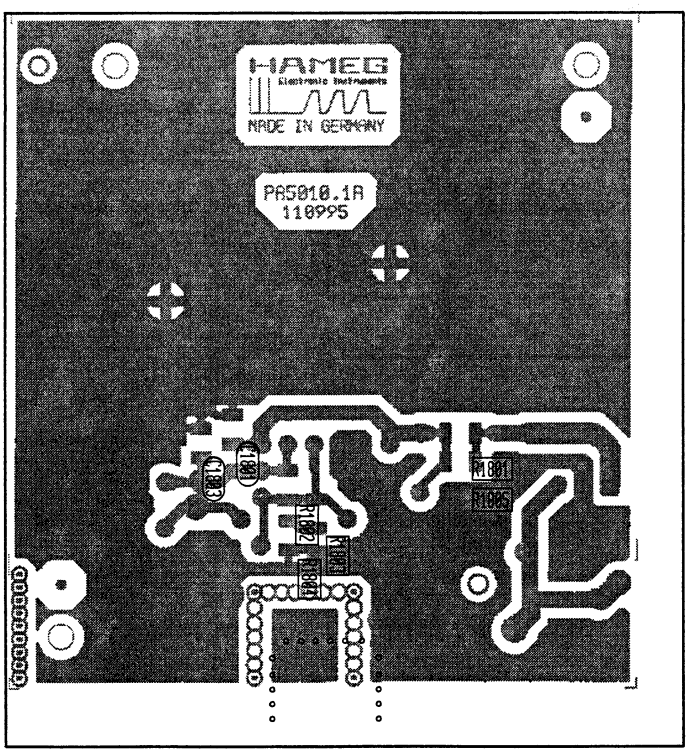







PA501 01A
Date 13.03.96 14:45
Sheet 1 of 1 PA-SMD
HAMEG Instruments
LM317L
TO92
P1801
PWR-JCK
+5V
100mA max.
C1804
10uF/16V
C2
C1803
0.1uF
R1802
274R
R2
LM317LZ
IC1801
IN OUT
ADJ
4.75V
R1804
470R5
R1803
1K00
R3
C1802
10uF/16V
C1801
0.1uF
C1
R1801
39R2
R1805
39R2
R1
KLIBU3.5
P1802
AUDIO
W1801
W3/230mm
AUDIO
AGND
+12V


HAMEG
MADE IN GERMANY
PA5010.1A
110995
W1801
P1801
P1802
C1802
IC1801
C1804


HAMEG
Electronic Instruments
MADE IN GERMANY
PA5010.1A
110995
W1801
R1805
C1801
R1802
R1803
R1804